

# Service Manual

## LG-P880

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# 1. INTRODUCTION

## 1.1 Purpose

This manual provides the information necessary to repair, calibration, description and download the features of this model.

## 1.2 Regulatory Information

### A. Security

Toll fraud, the unauthorized use of telecommunications system by an unauthorized part (for example, persons other than your company's employees, agents, subcontractors, or person working on your company's behalf) can result in substantial additional charges for your telecommunications services. System users are responsible for the security of own system. There are may be risks of toll fraud associated with your telecommunications system. System users are responsible for programming and configuring the equipment to prevent unauthorized use. The manufacturer does not warrant that this product is immune from the above case but will prevent unauthorized use of commoncarrier telecommunication service of facilities accessed through or connected to it. The manufacturer will not be responsible for any charges that result from such unauthorized use.

### B. Incidence of Harm

If a telephone company determines that the equipment provided to customer is faulty and possibly causing harm or interruption in service to the telephone network, it should disconnect telephone service until repair can be done. A telephone company may temporarily disconnect service as long as repair is not done.

### C. Changes in Service

A local telephone company may make changes in its communications facilities or procedure. If these changes could reasonably be expected to affect the use of the phones or compatibility with the net work, the telephone company is required to give advanced written notice to the user, allowing the user to take appropriate steps to maintain telephone service.

### D. Maintenance Limitations

Maintenance limitations on the phones must be performed only by the manufacturer or its authorized agent. The user may not make any changes and/or repairs except as specifically noted in this manual. Therefore, note that unauthorized alternations or repair may affect the regulatory status of the system and may void any remaining warranty.

### E. Notice of Radiated Emissions

This model complies with rules regarding radiation and radio frequency emission as defined by local regulatory agencies. In accordance with these agencies, you may be required to provide information such as the following to the end user.

### F. Pictures

The pictures in this manual are for illustrative purposes only; your actual hardware may look slightly different.

### G. Interference and Attenuation

A phone may interfere with sensitive laboratory equipment, medical equipment, etc. Interference from unsuppressed engines or electric motors may cause problems.

### H. Electrostatic Sensitive Devices

## ATTENTION

Boards, which contain Electrostatic Sensitive Device (ESD), are indicated by the  sign. Following information is ESD handling:

- Service personnel should ground themselves by using a wrist strap when exchange system boards.
- When repairs are made to a system board, they should spread the floor with anti-static mat which is also grounded.
- Use a suitable, grounded soldering iron.
- Keep sensitive parts in these protective packages until these are used.
- When returning system boards or parts like EEPROM to the factory, use the protective package as described.

### 1.3 Abbreviations

For the purposes of this manual, following abbreviations apply:

APC	Automatic Power Control
BB	Baseband
BER	Bit Error Ratio
CC-CV	Constant Current – Constant Voltage
DAC	Digital to Analog Converter
DCS	Digital Communication System
dBm	dB relative to 1 milli watt
DSP	Digital Signal Processing
EEPROM	Electrical Erasable Programmable Read-Only Memory
ESD	Electrostatic Discharge
FPCB	Flexible Printed Circuit Board
GMSK	Gaussian Minimum Shift Keying
GPIO	General Purpose Interface Bus
GSM	Global System for Mobile Communications
IPUI	International Portable User Identity
IF	Intermediate Frequency
LCD	Liquid Crystal Display
LDO	Low Drop Output
LED	Light Emitting Diode
OPLL	Offset Phase Locked Loop

## 1. INTRODUCTION

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PAM	Power Amplifier Module
PCB	Printed Circuit Board
PGA	Programmable Gain Amplifier
PLL	Phase Locked Loop
PSTN	Public Switched Telephone Network
RF	Radio Frequency
RLR	Receiving Loudness Rating
RMS	Root Mean Square
RTC	Real Time Clock
SAW	Surface Acoustic Wave
SIM	Subscriber Identity Module
SLR	Sending Loudness Rating
SRAM	Static Random Access Memory
PSRAM	Pseudo SRAM
STMR	Side Tone Masking Rating
TA	Travel Adapter
TDD	Time Division Duplex
TDMA	Time Division Multiple Access
UART	Universal Asynchronous Receiver/Transmitter
VCO	Voltage Controlled Oscillator
VCTCXO	Voltage Control Temperature Compensated Crystal Oscillator
WAP	Wireless Application Protocol

## 2. PERFORMANCE

### 2.1 Product Name

LG-P880 : WCDMA 850/900/1900/2100+GSM850/EGSM/DCS/PCS  
(HSUPA 5.8Mbps(cat6)/HSDPA 21Mbps(cat14)/GPRS Class12/EDGE Class12)

### 2.2 Supporting Standard

Item	Feature	Comment
Supporting Standard	WCDMA(FDD1,2,8)/EGSM/GSM850/DCS1800/PCS1900 with seamless handover Phase 2+(include AMR) SIM Toolkit : Class 1, 2, 3, C-E	
Frequency Range	WCDMA(FDD1) TX : 1920 – 1980 MHz WCDMA(FDD1) RX : 2110 – 2170 MHz WCDMA(FDD2) TX : 1850 – 1910 MHz WCDMA(FDD2) RX : 1930 – 1990 MHz WCDMA(FDD8) TX : 880 – 915 MHz WCDMA(FDD8) RX : 925 – 960 MHz EGSM TX : 880 – 915 MHz EGSM RX : 925 – 960 MHz GSM850 TX : 824 – 849 MHz GSM850 RX : 869 – 894 MHz GSM900 TX : 880 – 915 MHz GSM900 RX : 925 – 960 MHz DCS1800 TX : 1710 – 1785 MHz DCS1800 RX : 1805 – 1880 MHz PCS1900 TX : 1850 – 1910 MHz PCS1900 RX : 1930 – 1990 MHz	
Application Standard		

### 2.3 Main Parts : GSM Solution

Item	Part Name	Comment
AP Chip	AP33 : nVIDIA	
CP Chip	XMM6260 : IMC	

### 2.4 HW Features

Item		Feature	Comment
Form Factor		DOP type	
Battery	1) Capacity Standard : Li-Ion Polymer, 2000mAh		
	2) Packing Type : Soft Pack		
Size		Standard : 132.4 x 68.1 x 9.19 mm	
Weight		130 g(TBD)	With Battery
PCB		Any Layer, 12 Layers , 0.75t	
Stand by time		2G Up to 588 hrs 3G Up to 588 hrs	@ Paging Period 5 (2G) @ DRX 7 (3G)
Charging time		4 hrs	@ Power Off / 2000mAh
Talk time		2G Up to 430 min 3G Up to 430 min	@ Tx=Max(2G) @ Tx = 12dBm (3G)
RX sensitivity		WCDMA(FDD1) : -106.7 dBm WCDMA(FDD2) : -106.7 dBm WCDMA(FDD8) : -106.7 dBm EGSM : -105 dBm GSM850 : -105 dBm DCS 1800 : -105 dBm PCS 1900 : -105 dBm	
TX output power		WCDMA/ GSM/ GPRS	WCDMA : 24dBm/3.84MHz,+1/- 3dBm EGSM : 33dBm GSM850 : 33 dBm DCS 1800 : 30 dBm PCS 1900 : 30 dBm
GPRS compatibility	EDGE	EGSM : 26 dBm GSM850 : 26dBm DCS 1800 : 25 dBm PCS 1900 : 25 dBm	Class3(WCDMA) Class4 (EGSM) Class4 (GSM850) Class1 (PCS) Class1 (DCS)
	GPRS Class 12		E2 (GSM900) E2 (PCS) E2 (DCS)
EDGE compatibility		EDGE Class 12	
SIM card type		Plug-In SIM 2.85V /1.8V	

## 2. PERFORMANCE

Display	Main LCD (HD LCD) TFT Main LCD(4.57", 1280X720)	Brightness : Min. 380nit
Built-in Camera	8M Camera, 1.26M secondary	
Status Indicator	No	
Keypad	Function Key : 3 Side Key : 3	Function Key : Home, Back, menu, Side Key : Volume up,down, power key,
ANT	Main : LDS(Laser Direct Structure) type Sub : DPA type(Directed Print Antenna) NFC : Attached Battery cover	
System connector	5 Pin Micro USB	2.0 HS
Ear Phone Jack	3.5Phi, 4 Pole, Stereo	
PC synchronization	Yes	
Memory(AP)	eMMC : 16GB LP-DDR2 : 8Gb	
Speech coding	FR, EFR, HR, AMR,AMR-WB	
Data & Fax	Built in Data & Fax support	
Vibrator	Built in Vibrator	
BlueTooth	V4.0 BLE	
MIDI(for Buzzer Function)	72 Poly, MP3 Ringtone	
Music Player	MP3/ WMA/AAC/AAC+/WAV/AC3	
Video Player	MPEG4, H.263, H.264 @ Full HD 30fps/ Divx HD	
Camcorder	MPEG4, H.264, H.263 @ 1080p 30pfs	
Voice Recording	Yes	
Speaker Phone mode Support	Yes	
Travel Adapter	Yes	
CDROM	Yes	
Stereo Headset	No	
Data Cable	Yes	
T-Flash (External Memory)	Yes	Up to 64GB

### 2.5 SW Features

Item	Feature	Comment
RSSI	0 ~ 5 Levels	
Battery Charging	0 ~ 21 Levels	Android 3.0 (ICS)
Key Volume	0 ~ 7 Level	
Audio Volume	1 ~ 15 Level	
Time / Date Display	Yes	
Multi-Language	Yes	English, Espanol, Franch, Korea, Chinese
Quick Access Mode	Phone / Space / Browser / Menu	
PC Sync	Yes	
Speed Dial	Yes	Voice mail center -> 1 key
Profile	Yes	not same with feature phone setting
CLIP / CLIR	Yes	
Phone Book	Name / Number / Email / Chat Id / Website / Postal addresses / Organizations / Groups / BirthdayNotes / Ringtone	There is no limitation on the number of items. It depends on available memory amount.
Last Received Number	Yes	There is no limitation on the number of items. It depends on available memory amount.
Last Missed Number	Yes	There is no limitation on the number of items. It depends on available memory amount.
Search by Number / Name	Name / Number	
Group	Yes	There is no limitation on the number of items. It depends on available memory amount.
Fixed Dial Number	Yes	
Service Dial Number	No	
Own Number	Yes	Read only (add/edit/delete are not supported)
Voice Memo	Yes	Support voice recorder
Call Reminder	No	Missed call popup
Network Selection	Automatic	



## 2. PERFORMANCE

Mute	Yes	
Call Divert	Yes	
Call Barring	Yes	
Call Charge (AoC)	Yes	
Call Duration	Yes	
SMS (EMS)	There is no limitation on the number of items. It depends on available memory amount.	EMS does not support.
SMS Over GPRS	No	
EMS Melody / Picture Send / Receive / Save	No No	
MMS MPEG4 Send / Receive / Save	Yes Yes	
Long Message	MAX 765 characters	SMS 5 concatenated
Cell Broadcast	Yes	
Download	Yes	
Game	Yes	
Calendar	Yes	
Memo	Yes	There is no limitation on the number of items. It depends on available memory amount.
World Clock	Yes	
Unit Convert	No	
Stop Watch	Yes	
Wall Paper	Yes	
WAP Browser	No	WAP stack and wml are not supported.
Download Melody / Wallpaper	Yes	Over web browser
SIM Lock	Yes	Operator Dependent
SIM Toolkit	Class 1, 2, 3, C	
MMS	Yes	
EONS	Yes	
CPHS	Yes	V4.2
ENS	Yes	
Camera	Yes	5M AF / Digital Zoom : x8
JAVA	No	Android do not support JAVA
Voice Dial	Yes	
IrDa	No	

## 2. PERFORMANCE

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Bluetooth	Yes	Ver. 4.0 (+HS) (GAP, A2DP, AVRCP, FTP, HFP, HSP, OPP, SPP, PBAP, HID)
FM radio	Yes	
GPRS	Yes	Class 12
EDGE	Yes	Class 12
Hold / Retrieve	Yes	
Conference Call	Yes	Max. 7
DTMF	Yes	
Memo pad	Yes	Rich Note
TTY	Yes	
AMR	Yes	
SyncML	Yes	
IM	Yes	Gtalk
Email	Yes	

### 2.6 . HW SPEC

#### 1) GSM transceiver specification

Item	Specification
Phase Error	Rms : 5° Peak : 20 °
Frequency Error	GSM : 0.1 ppm DCS/PCS : 0.1 ppm
EMC(Radiated Spurious Emission Disturbance)	GSM/DCS : < -28dBm
Transmitter Output power	GSM850, EGSM : 5dBm ~ 33dBm ± 3dB DCS/PCS : 0dBm ~ 30dBm ± 3dB
Burst Timing	<3.69us
Spectrum due to modulation out to less than 1800kHz offset	200kHz : -36dBm 600kHz : -51dBm/-56dBm
Spectrum due to modulation out to larger than 1800kHz offset to the edge of the transmit band	GSM850, EGSM : 1800-3000kHz : < -63dBc(-46dBm) 3000kHz-6000kHz : < -65dBc(-46dBm) 6000kHz < : < -71dBc(-46dBm) DCS, PCS : 1800-3000kHz : < -65dBc(-51dBm) 6000kHz < : < -73dBc(-51dBm)
Spectrum due to switching transient	400kHz : -19dBm/-22dBm(5/0), -23dBm 600kHz : -21dBm/-24dBm(5/0), -26dBm
Reference Sensitivity – TCH/FS	Class II(RBER) : -105dBm(2.439%)
Usable receiver input level range	0.012(-15 - -40dBm)
Intermodulation rejection – Speech channels	± 800kHz, ± 1600kHz : -98dBm/-96dBm (2.439%)
AM Suppression – GSM : -31dBm - DCS : -29dBm	-98dBm/-96dBm (2.439%)
Timing Advance	± 0.5T

### 2) WCDMA transmitter specification

Item	Specification
Transmit Frequency	BD1: 1920MHz ~ 1980 MHz BD2: 1850~1910 MHz BD5: 824 MHz ~849 MHz
Maximum Output Power	+24 dBm / 3.84 MHz, +1 / -3 dB
Frequency Error	within $\pm 0.1$ PPM
Open Loop Power Control	Normal Conditions : within $\pm 9$ dB, Extreme Conditions : within $\pm 12$ dB
Minimum Transmit Power	< -50 dBm / 3.84 MHz
Occupied Bandwidth	< 5 MHz at 3.84 Mcps (99% of power)
Adjacent Channel Leakage Power Ratio (ACLR)	> 33 dB @ $\pm 5$ MHz, > 43 dB @ $\pm 10$ MHz
Spurious Emissions $ f-f_c  > 12.5$ MHz	< -36 dBm / 1 kHz RW @ $9 \text{ kHz} \leq f < 150 \text{ kHz}$ < -36 dBm / 10 kHz RW @ $150 \text{ kHz} \leq f < 30 \text{ MHz}$ < -36 dBm / 100 kHz RW @ $30 \text{ MHz} \leq f < 1 \text{ GHz}$ < -30 dBm / 1 MHz RW @ $1 \text{ GHz} \leq f < 12.75 \text{ GHz}$ < -60 dBm / 3.84 MHz RW @ $869 \text{ MHz} \leq f \leq 894 \text{ MHz}$ < -60 dBm / 3.84 MHz RW @ $1930 \text{ MHz} \leq f \leq 1900 \text{ MHz}$ < -60 dBm / 3.84 MHz RW @ $2110 \text{ MHz} \leq f \leq 2155 \text{ MHz}$ < -67 dBm / 100 kHz RW @ $925 \text{ MHz} \leq f \leq 935 \text{ MHz}$ < -79 dBm / 100 kHz RW @ $935 \text{ MHz} < f \leq 960 \text{ GHz}$ < -71 dBm / 100 kHz RW @ $1805 \text{ MHz} \leq f \leq 1880 \text{ MHz}$ < -41 dBm / 300 kHz RW @ $1884.5 \text{ MHz} < f < 1919.6 \text{ MHz}$
Transmit Intermodulation	< -31 dBc @ 5 MHz & < -41 dBc @ 10 MHz when Interference CW Signal Level = -40 dBc
Error Vector Magnitude	< 17.5 %, when Pout $\geq$ -20 dBm
Peak Code Domain Error	< -15 dB at Pout $\geq$ -20 dBm

### 3) WCDMA receiver specification

Item	Specification																			
Receive Frequency	BD1: 2110 MHz ~2170 MHz BD2: 1850~1910 MHz BD5: 869 MHz ~ 894 MHz																			
Reference Sensitivity Level	Band1 : BER < 0.001 when $\hat{I}_{or} = -106.7$ dBm / 3.84 MHz Band2 : BER < 0.001 when $\hat{I}_{or} = -106.7$ dBm / 3.84 MHz Band5 : BER < 0.001 when $\hat{I}_{or} = -106.7$ dBm / 3.84 MHz																			
Maximum Input Level	BER < 0.001 when $\hat{I}_{or} = -25$ dBm / 3.84 MHz																			
Adjacent Channel Selectivity (ACS)	ACS > 33 dB where BER < 0.001 when $\hat{I}_{or} = -92.7$ dBm / 3.84 MHz & $I_{oac} = -52$ dBm / 3.84 MHz @ $\pm 5$ MHz																			
Blocking Characteristic	BER < 0.001 when $\hat{I}_{or} = -103.7$ dBm / 3.84 MHz & $I_{blocking} = -56$ dBm / 3.84 MHz @ $F_{uw}(\text{offset}) = \pm 10$ MHz or $I_{blocking} = -44$ dBm / 3.84 MHz @ $F_{uw}(\text{offset}) = \pm 15$ MHz																			
Spurious Response	BER < 0.001 when $\hat{I}_{or} = -103.7$ dBm / 3.84 MHz & $I_{blocking} = -44$ dBm																			
Intermodulation	BER < 0.001 when $\hat{I}_{or} = -103.7$ dBm / 3.84 MHz & $I_{ouw1} = -46$ dBm @ $F_{uw1}(\text{offset}) = \pm 10$ MHz & $I_{ouw2} = -46$ dBm / 3.84 MHz @ $F_{uw2}(\text{offset}) = \pm 20$ MHz																			
Spurious Emissions	< -57 dBm / 100 kHz BW @ $9 \text{ kHz} \leq f < 1 \text{ GHz}$ < -47 dBm / 1 MHz BW @ $1 \text{ GHz} \leq f \leq 12.75 \text{ GHz}$																			
Inner Loop Power Control In Uplink	Adjust output(TPC command) <table><tr><td>cmd</td><td>1dB</td><td>2dB</td><td>3dB</td></tr><tr><td>+1</td><td>+0.5/1.5</td><td>+1/3</td><td>+1.5/4</td></tr><tr><td>0</td><td>-0.5/+0.5</td><td>-0.5/+0.5</td><td>-0.5/+0.5</td></tr><tr><td>-1</td><td>-0.5/-1.5</td><td>-1/-3</td><td>-1.5/-4</td></tr></table> group(10equal command group) <table><tr><td>+1</td><td>+8/+12</td><td>+16/+24</td></tr></table>	cmd	1dB	2dB	3dB	+1	+0.5/1.5	+1/3	+1.5/4	0	-0.5/+0.5	-0.5/+0.5	-0.5/+0.5	-1	-0.5/-1.5	-1/-3	-1.5/-4	+1	+8/+12	+16/+24
cmd	1dB	2dB	3dB																	
+1	+0.5/1.5	+1/3	+1.5/4																	
0	-0.5/+0.5	-0.5/+0.5	-0.5/+0.5																	
-1	-0.5/-1.5	-1/-3	-1.5/-4																	
+1	+8/+12	+16/+24																		

### 4) HSDPA transmitter specification

Item	Specification															
Transmit Frequency	BD1: 1920MHz ~ 1980 MHz BD2: 1850~1910 MHz BD8: 880 MHz ~ 915 MHz															
Maximum Output Power	Sub-Test 1=2/15, 25.7~20.3dBm / 3.84 MHz 2=12/15 25.7~20.3dBm / 3.84 MHz 3=15/8 25.7~19.8dBm / 3.84 MHz 4=15/4 25.7~19.8dBm / 3.84 MHz															
Spectrum Emission Mask	Sub-Test : 1=2/15, 2=12/15, 3=15/8, 4=15/4 <table><tr><th>Frequency offset from carrier <math>\Delta f</math></th><th>Minimum requirement</th><th>Measurement Bandwidth</th></tr><tr><td>2.5 ~ 3.5 MHz</td><td>-35-15<math>\times</math>(<math>\Delta f</math>-2.5)dBc</td><td>30 kHz</td></tr><tr><td>3.5 ~ 7.5 MHz</td><td>-35-1<math>\times</math>(<math>\Delta f</math>-3.5)dBc</td><td>1 MHz</td></tr><tr><td>7.5 ~ 8.5 MHz</td><td>-35-10<math>\times</math>(<math>\Delta f</math>-7.5)dBc</td><td>1 MHz</td></tr><tr><td>8.5 ~ 12.5 MHz</td><td>-49dBc</td><td>1 MHz</td></tr></table>	Frequency offset from carrier $\Delta f$	Minimum requirement	Measurement Bandwidth	2.5 ~ 3.5 MHz	-35-15 $\times$ ( $\Delta f$ -2.5)dBc	30 kHz	3.5 ~ 7.5 MHz	-35-1 $\times$ ( $\Delta f$ -3.5)dBc	1 MHz	7.5 ~ 8.5 MHz	-35-10 $\times$ ( $\Delta f$ -7.5)dBc	1 MHz	8.5 ~ 12.5 MHz	-49dBc	1 MHz
Frequency offset from carrier $\Delta f$	Minimum requirement	Measurement Bandwidth														
2.5 ~ 3.5 MHz	-35-15 $\times$ ( $\Delta f$ -2.5)dBc	30 kHz														
3.5 ~ 7.5 MHz	-35-1 $\times$ ( $\Delta f$ -3.5)dBc	1 MHz														
7.5 ~ 8.5 MHz	-35-10 $\times$ ( $\Delta f$ -7.5)dBc	1 MHz														
8.5 ~ 12.5 MHz	-49dBc	1 MHz														
Adjacent Channel Leakage Power Ratio (ACLR)	Sub-Test : 1=2/15, 2=12/15, 3=15/8, 4=15/4 > 33 dB @ $\pm 5$ MHz > 43 dB @ $\pm 10$ MHz															
Error Vector Magnitude	< 17.5 %, when Pout $\geq$ -20 dBm															

### 5) HSDPA receiver specification

Item	Specification
Receive Frequency	BD1: 2110 MHz ~2170 MHz BD2: 1850~1910 MHz BD8: 925MHz ~ 960 MHz
Maximum Input Level (BLER or R), 16QAM Only	Sub-Test : 1=2/15, 2=12/15, 3=15/8, 4=15/4 BLER < 10% or R >= 700kbps

### 6) HSUPA Tx, Rx specification

Item	Specification															
Maximum Output Power	Sub-Test															
	1=11/15                      25.7~17.3dBm / 3.84 MHz															
	2=6/15                      25.7~16.8dBm / 3.84 MHz															
	3=15/9                      25.7~17.8dBm / 3.84 MHz															
	4=2/15                      25.7~16.8dBm / 3.84 MHz															
5=15/15                      25.7~20.3dBm / 3.84 MHz																
Spectrum Emission Mask	Sub-Test : 1=11/15, 2=6/15, 3=15/9, 4=2/15, 5=15/15															
	<table><tr><th>Frequency offset from carrier <math>\Delta f</math></th><th>Minimum requirement</th><th>Measurement Bandwidth</th></tr><tr><td>2.5 ~ 3.5 MHz</td><td>-35-15<math>\times(\Delta f-2.5)</math>dBc</td><td>30 kHz</td></tr><tr><td>3.5 ~ 7.5 MHz</td><td>-35-1<math>\times(\Delta f-3.5)</math>dBc</td><td>1 MHz</td></tr><tr><td>7.5 ~ 8.5 MHz</td><td>-35-10<math>\times(\Delta f-7.5)</math>dBc</td><td>1 MHz</td></tr><tr><td>8.5 ~ 12.5 MHz</td><td>-49dBc</td><td>1 MHz</td></tr></table>	Frequency offset from carrier $\Delta f$	Minimum requirement	Measurement Bandwidth	2.5 ~ 3.5 MHz	-35-15 $\times(\Delta f-2.5)$ dBc	30 kHz	3.5 ~ 7.5 MHz	-35-1 $\times(\Delta f-3.5)$ dBc	1 MHz	7.5 ~ 8.5 MHz	-35-10 $\times(\Delta f-7.5)$ dBc	1 MHz	8.5 ~ 12.5 MHz	-49dBc	1 MHz
	Frequency offset from carrier $\Delta f$	Minimum requirement	Measurement Bandwidth													
	2.5 ~ 3.5 MHz	-35-15 $\times(\Delta f-2.5)$ dBc	30 kHz													
	3.5 ~ 7.5 MHz	-35-1 $\times(\Delta f-3.5)$ dBc	1 MHz													
	7.5 ~ 8.5 MHz	-35-10 $\times(\Delta f-7.5)$ dBc	1 MHz													
8.5 ~ 12.5 MHz	-49dBc	1 MHz														
Adjacent Channel Leakage Power Ratio (ACLR)	Sub-Test : 1=11/15, 2=6/15, 3=15/9, 4=2/15, 5=15/15															
	> 33 dB @ $\pm 5$ MHz															
	> 43 dB @ $\pm 10$ MHz															

### 7) WLAN 802.11a transceiver specification

Item	Specification
Transmit Frequency	5150 MHz ~ 5725 MHz ( CH36~CH140 )
Tx Power Level	$\leq 23\text{dBm}$ (5150 ~ 5350 MHz), $\leq 30\text{dBm}$ (5470 ~ 5725 MHz)
Frequency Tolerance	within $\pm 20$ PPM
Chip clock Frequency Tolerance	within $\pm 20$ PPM
Spectrum Mask	$\leq -20$ @ $\pm 11\text{MHz}$ offset (9Mhz ~ 11MHz) $\leq -28$ @ $\pm 20\text{MHz}$ offset (11MHz ~ 20Mhz) $\leq -40$ @ $\pm 30\text{MHz}$ offset (20MHz ~ 30Mhz)
Transmitter constellation error (rms EVM)	$\leq -5\text{dB@6Mbps}$ , $\leq -8\text{dB@9Mbps}$ , $\leq -10\text{dB@12Mbps}$ , $\leq -13\text{dB@18Mbps}$ , $\leq -16\text{dB@24Mbps}$ , $\leq -19\text{dB@36Mbps}$ , $\leq -22\text{dB@48Mbps}$ , $\leq -25\text{dB@54Mbps}$
Spurious Emissions	$< -36\text{ dBm @ } 30\text{ MHz to } 47\text{ MHz}$ $< -54\text{ dBm @ } 47\text{ MHz to } 74\text{ MHz}$ $< -36\text{ dBm @ } 74\text{ MHz to } 87,5\text{ MHz}$ $< -54\text{ dBm @ } 87,5\text{ MHz to } 118\text{ MHz}$ $< -36\text{ dBm @ } 118\text{ MHz to } 174\text{ MHz}$ $< -54\text{ dBm @ } 174\text{ MHz to } 230\text{ MHz}$ $< -36\text{ dBm @ } 230\text{ MHz to } 470\text{ MHz}$ $< -54\text{ dBm @ } 470\text{ MHz to } 862\text{ MHz}$ $< -36\text{ dBm @ } 862\text{ MHz to } 1\text{ GHz}$ $< -30\text{ dBm @ } 1\text{ GHz to } 5.15\text{ GHz}$ $< -30\text{ dBm @ } 5.35\text{ GHz to } 5.47\text{ GHz}$ $< -30\text{ dBm @ } 5.725\text{ GHz to } 26.5\text{ GHz}$
Rx Min input Sensitivity	PER $\leq 10\%$ $-82\text{dBm@6Mbps}$ , $-81\text{dBm@9Mbps}$ , $-79\text{dBm@12Mbps}$ $-77\text{dBm@18Mbps}$ , $-74\text{dBm@24Mbps}$ , $-70\text{dBm@36Mbps}$ $-66\text{dBm@48Mbps}$ , $-65\text{dBm@54Mbps}$
Rx Max input Sensitivity	$\geq -30\text{dBm}(6,9,12,18,24,36,48,54\text{Mbps})$ @ PER $\leq 10\%$
Rx Adjacent Channel Rejection	PER $\leq 10\%$ , ACR $\geq 16\text{dB@6Mbps}$ , ACR $\geq 15\text{dB@9Mbps}$ , ACR $\geq 13\text{dB@12Mbps}$ , ACR $\geq 11\text{dB@18Mbps}$ , ACR $\geq 8\text{dB@24Mbps}$ , ACR $\geq 4\text{dB@36Mbps}$ ACR $\geq 0\text{dB@48Mbps}$ , ACR $\geq -1\text{dB@54Mbps}$  ※ ACR shall be measured by setting the desired signal's strength 3 dB above the rate-dependent sensitivity specified in min input sensitivity



### 8) WLAN 802.11b transceiver specification

Item	Specification
Transmit Frequency	2400 MHz ~ 2483.5 MHz ( CH1~CH13 )
Tx Power Level	$\leq 20\text{dBm}$
Frequency Tolerance	within $\pm 25$ PPM
Chip clock Frequency Tolerance	within $\pm 25$ PPM
Spectrum Mask	$\leq -30$ @ $f_c - 22\text{MHz} < f < f_c - 11\text{MHz}$ and $f_c + 11\text{MHz} < f < f_c + 22\text{MHz}$ $\leq -50$ @ $f < f_c - 22\text{MHz}$ and $f > f_c + 22\text{MHz}$
Power ramp on/off time	$\leq 2\mu\text{s}$
Carrier Suppression	$\leq -15\text{dB}$
Modulation Accuracy (Peak EVM)	$\leq 35\%$
Spurious Emissions	$< -36$ dBm @ 30MHz ~ 1GHz $< -30$ dBm above @ 1GHz ~ 12.75GHz $< -47$ dBm @ 1.8GHz ~ 1.9GHz $< -47$ dBm @ 5.15GHz ~ 5.3GHz
Rx Min input Sensitivity	$\leq -76\text{dBm}$ (1Mbps,2Mbps,5.5Mbps,11Mbps) @ FER $\leq 8\%$
Rx Max input Sensitivity	$\geq -10\text{dBm}$ (1Mbps,2Mbps,5.5Mbps,11Mbps) @ FER $\leq 8\%$
Rx Adjacent Channel Rejection	$\geq 35\text{dB}$ @FER $\leq 8\%$ , interference input signal $-70\text{dBm}@f_c \pm 25\text{MHz}$ (11Mbps)

### 9) WLAN 802.11g transceiver specification

Item	Specification
Transmit Frequency	2400 MHz ~ 2483.5 MHz ( CH1~CH13 )
Tx Power Level	≤ 20dBm
Frequency Tolerance	within ±25 PPM
Chip clock Frequency Tolerance	within ±25 PPM
Spectrum Mask	≤ -20 @ ±11MHz offset (9Mhz ~ 11MHz) ≤ -28 @ ±20MHz offset (11MHz ~ 20Mhz) ≤ -40 @ ±30MHz offset (20MHz ~ 30Mhz)
Transmitter constellation error (rms EVM)	≤ -5dB@6Mbps, ≤ -8dB@9Mbps, ≤ -10dB@12Mbps, ≤ -13dB@18Mbps, ≤ -16dB@24Mbps, ≤ -19dB@36Mbps, ≤ -22dB@48Mbps, ≤ -25dB@54Mbps
Spurious Emissions	< -36 dBm @ 30MHz ~ 1GHz < -30 dBm above @ 1GHz ~ 12.75GHz < -47 dBm @ 1.8GHz ~ 1.9GHz < -47 dBm @ 5.15GHz ~ 5.3GHz
Rx Min input Sensitivity	PER ≤ 10% -82dBm@6Mbps, -81dBm@9Mbps, -79dBm@12Mbps -77dBm@18Mbps, -74dBm@24Mbps, -70dBm@36Mbps -66dBm@48Mbps, -65dBm@54Mbps
Rx Max input Sensitivity	≥ -20dBm(6,9,12,18,24,36,48,54Mbps) @ PER ≤ 10%
Rx Adjacent Channel Rejection	PER ≤ 10%, ACR ≥ 16dB@6Mbps, ACR ≥ 15dB@9Mbps, ACR ≥ 13dB@12Mbps, ACR ≥ 11dB@18Mbps, ACR ≥ 8dB@24Mbps, ACR ≥ 4dB@36Mbps ACR ≥ 0dB@48Mbps, ACR ≥ -1dB@54Mbps  ※ ACR shall be measured by setting the desired signal's strength 3 dB above the rate-dependent sensitivity specified in min input sensitivity

### 10) WLAN 802.11n transceiver specification

Item	Specification
Transmit Frequency	2400 MHz ~ 2483.5 MHz ( CH1~CH13 ) 5150 MHz ~ 5725 MHz ( CH36~CH140 )
Tx Power Level	$\leq 20\text{dBm}$ (2400 ~ 2483.5 MHz) $\leq 23\text{dBm}$ (5150 ~ 5350 MHz), $\leq 30\text{dBm}$ (5470 ~ 5725 MHz)
Frequency Tolerance	within $\pm 25$ PPM(2400 ~ 2483.5 MHz) within $\pm 20$ PPM(5150 ~ 5725 MHz)
Chip clock Frequency Tolerance	within $\pm 25$ PPM(2400 ~ 2483.5 MHz) within $\pm 20$ PPM(5150 ~ 5725 MHz)
Spectrum Mask	$\leq -20$ @ $\pm 11\text{MHz}$ offset (9MHz ~ 11MHz) $\leq -28$ @ $\pm 20\text{MHz}$ offset (11MHz ~ 20MHz) $\leq -45$ @ $\pm 30\text{MHz}$ offset (20MHz ~ 30MHz)
Transmitter constellation error (rms EVM)	$\leq -5\text{dB}$ @6.5Mbps, $\leq -10\text{dB}$ @13Mbps, $\leq -13\text{dB}$ @19.5Mbps, $\leq -16\text{dB}$ @26Mbps, $\leq -19\text{dB}$ @39Mbps, $\leq -22\text{dB}$ @52Mbps, $\leq -25\text{dB}$ @58.5Mbps, $\leq -28\text{dB}$ @65Mbps
Spurious Emissions	[ 2400 MHz ~ 2483.5 MHz ( CH1~CH13 ) ] $< -36\text{ dBm}$ @ 30MHz ~ 1GHz $< -30\text{ dBm}$ above @ 1GHz ~ 12.75GHz $< -47\text{ dBm}$ @ 1.8GHz ~ 1.9GHz $< -47\text{ dBm}$ @ 5.15GHz ~ 5.3GHz  [ 5150 MHz ~ 5725 MHz ( CH36~CH140 ) ] $< -36\text{ dBm}$ @ 30 MHz to 47 MHz $< -54\text{ dBm}$ @ 47 MHz to 74 MHz $< -36\text{ dBm}$ @ 74 MHz to 87,5 MHz $< -54\text{ dBm}$ @ 87,5 MHz to 118 MHz $< -36\text{ dBm}$ @ 118 MHz to 174 MHz $< -54\text{ dBm}$ @ 174 MHz to 230 MHz $< -36\text{ dBm}$ @ 230 MHz to 470 MHz $< -54\text{ dBm}$ @ 470 MHz to 862 MHz $< -36\text{ dBm}$ @ 862 MHz to 1 GHz $< -30\text{ dBm}$ @ 1 GHz to 5.15 GHz $< -30\text{ dBm}$ @ 5.35 GHz to 5.47 GHz $< -30\text{ dBm}$ @ 5.725 GHz to 26.5 GHz
Rx Min input Sensitivity	PER $\leq 10\%$ $-82\text{dBm}$ @6.5Mbps, $-79\text{dBm}$ @13Mbps, $-77\text{dBm}$ @19.5Mbps $-74\text{dBm}$ @26Mbps, $-70\text{dBm}$ @39Mbps, $-66\text{dBm}$ @52Mbps $-65\text{dBm}$ @58.5Mbps, $-64\text{dBm}$ @65Mbps
Rx Max input Sensitivity	$\geq -20\text{dBm}$ @ PER $\leq 10\%$ (2400 ~ 2483.5 MHz) $\geq -30\text{dBm}$ @ PER $\leq 10\%$ (5150 ~ 5725 MHz)

## 2. PERFORMANCE

Rx Adjacent Channel Rejection	<p>PER ≤ 10%,            ACR ≥ 16dB@6.5Mbps, ACR ≥ 13dB@13Mbps,            ACR ≥ 11dB@19.5Mbps, ACR ≥ 8dB@26Mbps,            ACR ≥ 4dB@39Mbps, ACR ≥ 0dB@52Mbps            ACR ≥ -1dB@58.5Mbps, ACR ≥ -2dB@65Mbps</p> <p>※ ACR shall be measured by setting the desired signal's strength 3 dB above the rate-dependent Sensitivity specified in min input sensitivity</p>
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### 11) GPS receiver specification

Item	Specification
Receive Frequency	1574.42 MHz ~ 1576.42 MHz
Minimum Sensitivity	1 satellite ≥ -142dBm, 7 satellites ≥ -147dBm at coarse time aiding

### 12) Current consumption

	Stand by		Voice Call	VT
	Bluetooth Off	Bluetooth Connected		
WCDMA Only	4.0 mA under (DRX=1.28)	6 mA under (DRX=1.28)	270 mA under (Tx=12dBm)	NA
GSM Only	4.0 mA under (Paging=5 period)	6 mA under (Paging=5 period)	340 mA under (Tx=Max)	

\*\* Test condition for Standby current consumption should be as below.

: Measurement time 1hr, with Agilent & CMT JIG

### 13) Battery life time

	Stand by	Voice Call	VT
WCDMA	500 hours over (DRX = 1.28)	430 min over (TX = 12dBm, Low Pwr mode)	NA
GSM	500 hours over (Paging Period = 5)	430 min over (TX Level = Max)	

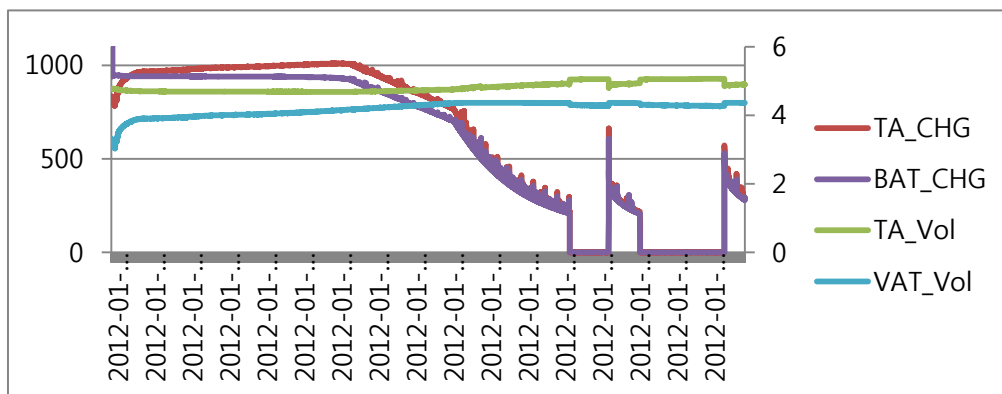
### 14) NFC

Operate below 3 mode.

- 1) Card mode : Smart Card capability for mobile device(recognition distance : over 40mm)
- 2) Reader mode : Get information from tag(recognition distance : over 30mm)
- 3) Peer-to-peer mode : Device to device communication(recognition distance : over 5mm)

### 15) Charging hour

4hour under (2000mAh battery, 1.2A TA)



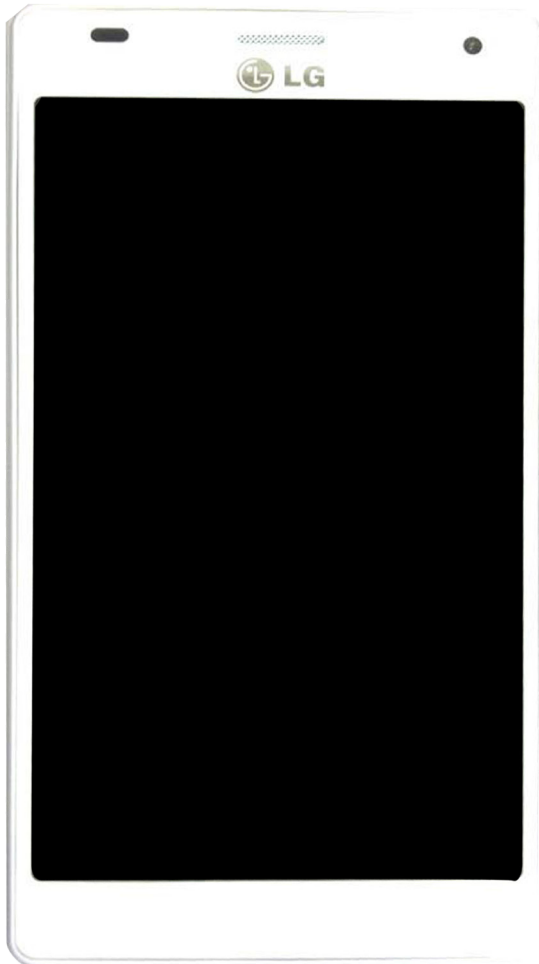
### 16) RSSI indicator (Based on Cell power)

BAR	WCDMA	GSM/DCS/PCS
4	$> -88 \pm 2\text{dBm}$	$> -91 \pm 2\text{dBm}$
4 $\rightarrow$ 3	$-88 \pm 2\text{dBm}$	$-91 \pm 2\text{dBm}$
3 $\rightarrow$ 2	$-96 \pm 2\text{dBm}$	$-99 \pm 2\text{dBm}$
2 $\rightarrow$ 1	$-104 \pm 2\text{dBm}$	$-103 \pm 2\text{dBm}$
1 $\rightarrow$ 0	$-110 \pm 2\text{dBm}$	$-105 \pm 2\text{dBm}$
No service	$< -110 \text{ dBm}$	$< -105 \text{ dBm}$

### 17) Battery indicator

Battery Bar	Specification	Unit
BAR 20 (Full)	98% over	Remain%
BAR 20 -> 19	98% → 97%	
BAR 19 -> 18	93% → 92%	
BAR 18 -> 17	88% → 87%	
BAR 17 -> 16	83% → 82%	
BAR 16 -> 15	78% → 77%	
BAR 15 -> 14	73% → 72%	
BAR 14 -> 13	68% → 67%	
BAR 13 -> 12	63% → 62%	
BAR 12 -> 11	58% → 57%	
BAR 11 -> 10	53% → 52%	
BAR 10 -> 9	48% → 47%	
BAR 9 -> 8	43% → 42%	
BAR 8 -> 7	38% → 37%	
BAR 7 -> 6	33% → 32%	
BAR 6 -> 5	28% → 27%	
BAR 5 -> 4	23% → 22%	
BAR 4 -> 3	18% → 17%	
BAR 3 -> 2	13% → 12%	
BAR 2 -> 1	8% → 7%	
BAR 1 -> 0	3% → 2%	
Low Battery Pop-up	4% ~ 15% : One Time popup at 15%(No call)	
Critical Low Battery Pop-up	0% ~ 3% : Every Level change popup (No call)	
POWER OFF	1% under	

### 2.7 P880 Figures

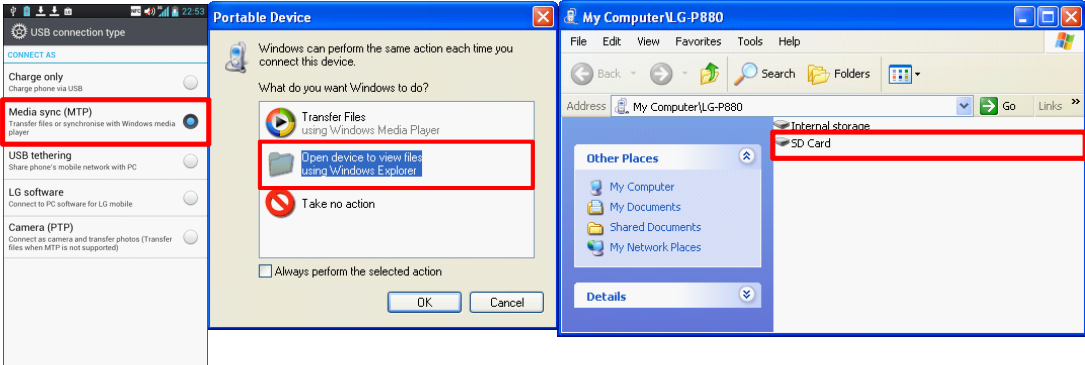


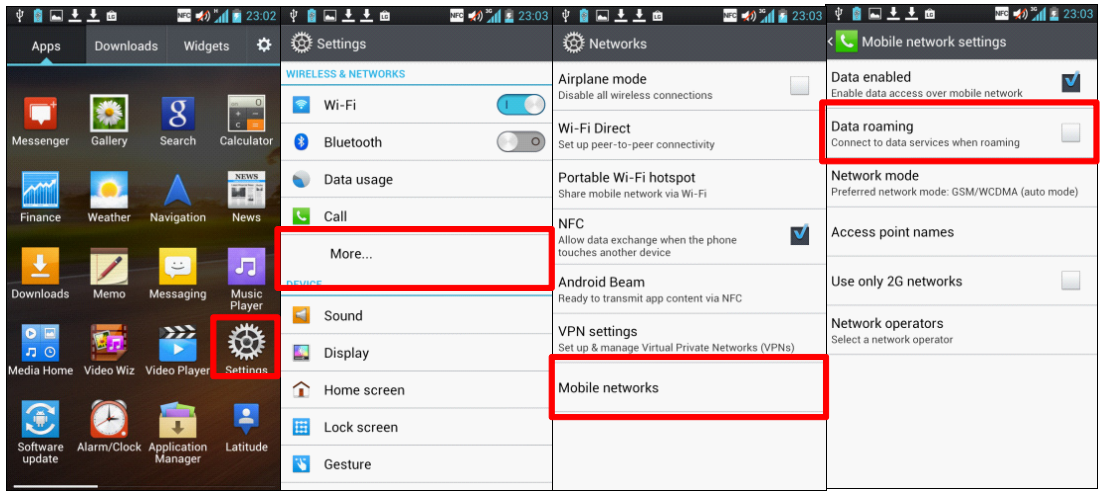
### 3.CIC\_AND SERVICE CENTER

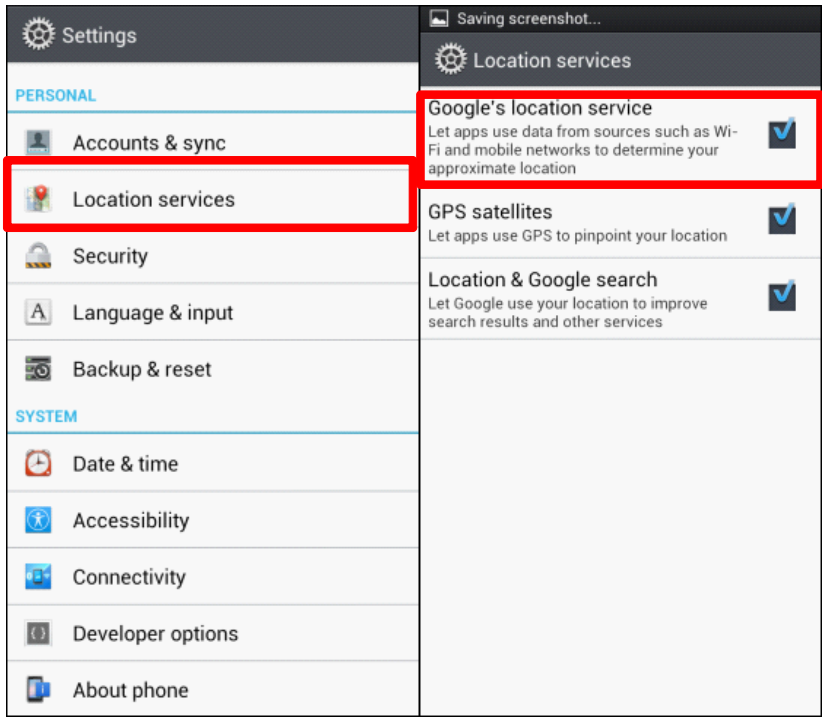
#### 3.1 CIC FAQ

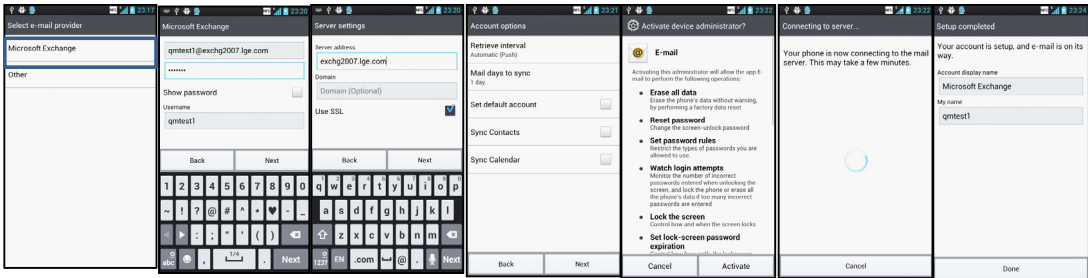
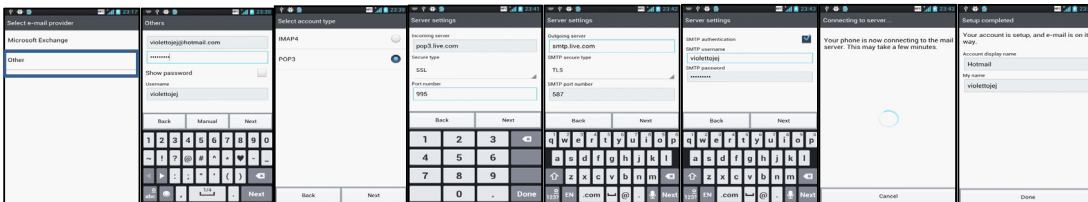
No	FAQ	Q&A
1	<b>Q</b>	I forgot my PhoneLock password.
	<b>A</b>	<p>When phone is disabled due to password or pin lock, press Power key + Volume down key to power on while phone is powered off. As soon as LED turns on, press Home key and start Factory Reset.</p> <ul style="list-style-type: none"> <li>- For pattern lock, you can set a new pattern by pressing the Forgot button when a gmail account is set.</li> <li>- Without gmail accounts, press Power key + Volume Down Key to try factory reset.</li> </ul>
	Request for development	<ol style="list-style-type: none"> <li>1. How to disable Pattern Lock, Password and PIN.</li> <li>2. Request for checking out it is specified in the user manual.</li> <li>3. Descriptions on HW factory reset key combination and how to do it.</li> </ol>

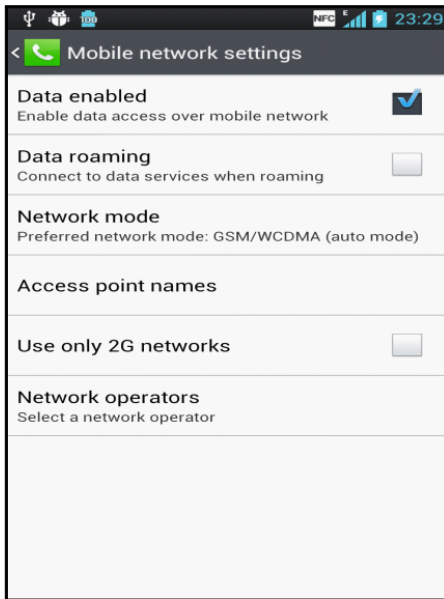


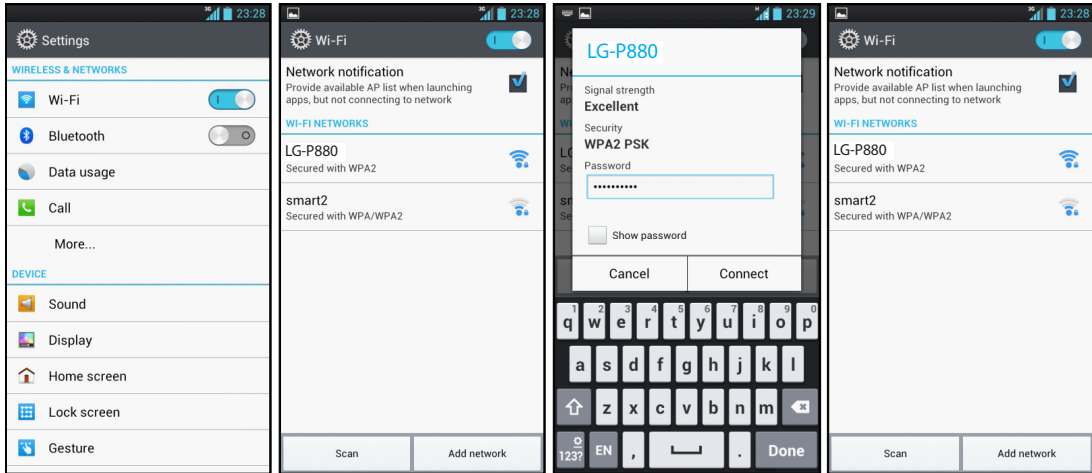
No	FAQ	Q&A
2	Q	<p>What should I do to add or remove files to and from the SD card?</p>
	A	<p>To write or delete files on the SD card, you need to connect the phone to your PC via a MTP</p> <ol style="list-style-type: none"> <li>1. Firstly connect device to PC using USB Cable, then a pop-up about USB Connection Type will be displayed. Set connection with MTP.</li> <li>2. Choose connection setting pop-up in PC as follows.</li> <li>3. Then, explorer pops up and you can open SD card. You can move/copy file between PC and SD Card here.</li> </ol> 
Request for development		<p>1.PC&lt;-&gt; SD CARD 2.PHONE&lt;-&gt; SD CARD</p>

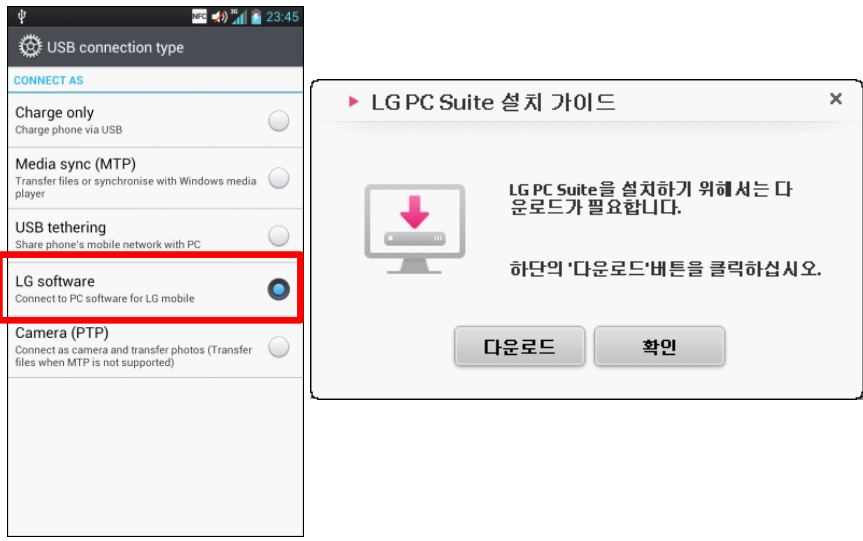
No	FAQ	Q&A
3	Q	3G connection does not work properly abroad.
	A	<p>Check if the status is 'uncheck' on Settings &gt; Wireless &amp; networks &gt; More... &gt; Mobile networks &gt; Data Roaming If it is 'uncheck', switch it to 'check'.</p>  <p>The screenshots illustrate the navigation path to enable data roaming. The first screenshot shows the home screen with the 'Settings' icon highlighted. The second screenshot shows the 'Wireless &amp; Networks' settings page with the 'More...' option highlighted. The third screenshot shows the 'Mobile network settings' page with the 'Data roaming' toggle switch checked.</p>
Request for development		<p>ex) 1. Europe&lt;-&gt;Europe 2. Europe&lt;-&gt;Continent(North America, Asia etc).</p>

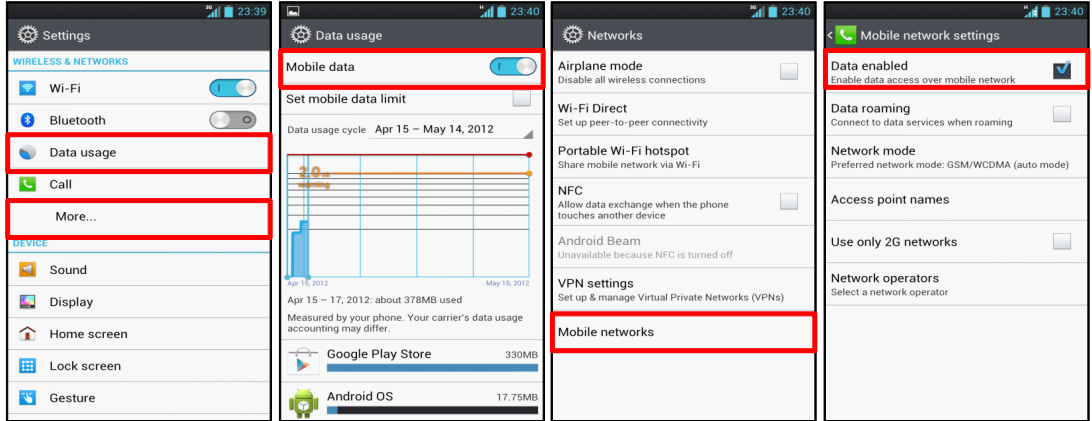
No	FAQ	Q&A
4	Q	What should I do to deal with the wrong GPS location?
	A	<p>GPS signals are so weak that weather conditions or surrounding environment such as radio wave reflection may keep locations from being captured.</p> <p>*If Setting-&gt;Personal&gt;Location services is checked on the Google's location service, the location info can be brought from nearby bases. This, however, has wider margin of error than GPS that the location info captured may not be correct.</p> <p>If you check Google's location service and find current location with GPS outdoor, you can reduce inaccuracy.</p> 
5	Q	What should I do to deal with the incompatible apps downloaded?
	A	<p>You need to describe the incompatible status specifically.</p> <p>Incompatibility, in general, seems to result from not having considered the compatibility when they built the apps.</p> <p>et us know the incompatible apps. We'll find out what the problems are.</p> <p>Thanks.</p>

No	FAQ	Q&A
6	Q	<p>What should I do to create an email account?</p>
A		<p>Email supports EAS, IMAP4, POP3 protocol. The registration order is as follows. (If no account is registered, the registration screen is automatically connected when using the e-mail.)</p> <p><b>* EAS account</b></p> <p>Among e-mail service providers, choose MS Exchange &gt; enter e-mail address, password (The user name isn't changed unless the e-mail ID and user name is different.)</p> <p>&gt; Choose server address, domain and SSL &gt; Set receiving interval, e-mail activating term &gt; (Security setting following the server setting) &gt; Confirm</p>  <p><b>* IMAP4, POP3</b></p> <p>Select among e-mail service providers &gt; enter e-mail address, password &gt; (Check if your account supports IMAP4 or POP3 service)</p> <p>&gt; Choose receiving server and security type(Automatic enter and progress if the service provider is already entered) &gt; Select sending server and security connection(Automatic enter and progress if the service provider is already entered)</p> <p>&gt; (Generally, SMTP user name and password is the same as the e-mail address and password entered in the first place) &gt; Confirm</p> 

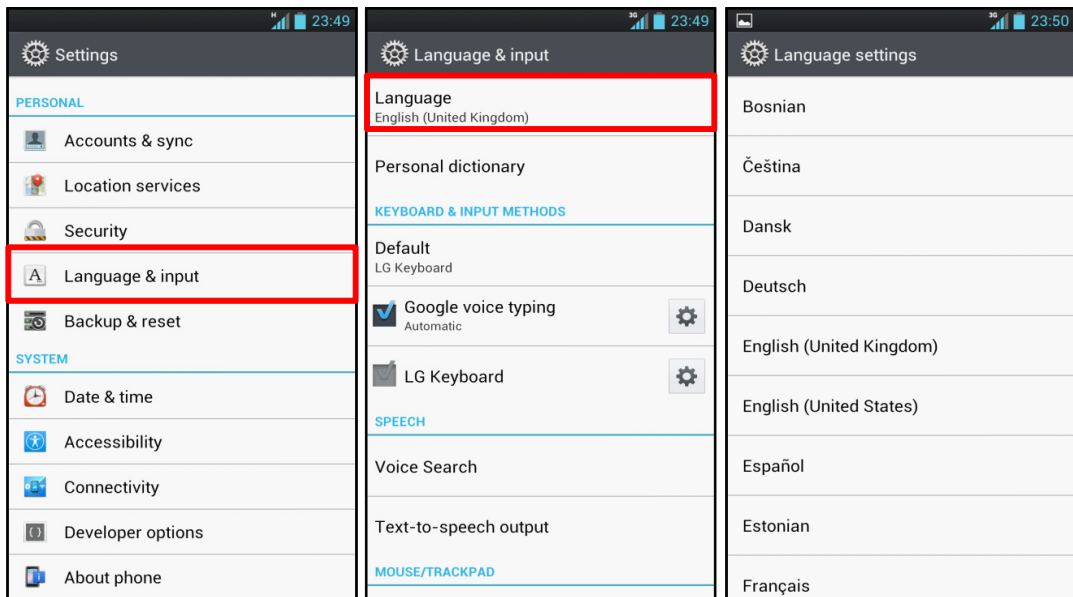
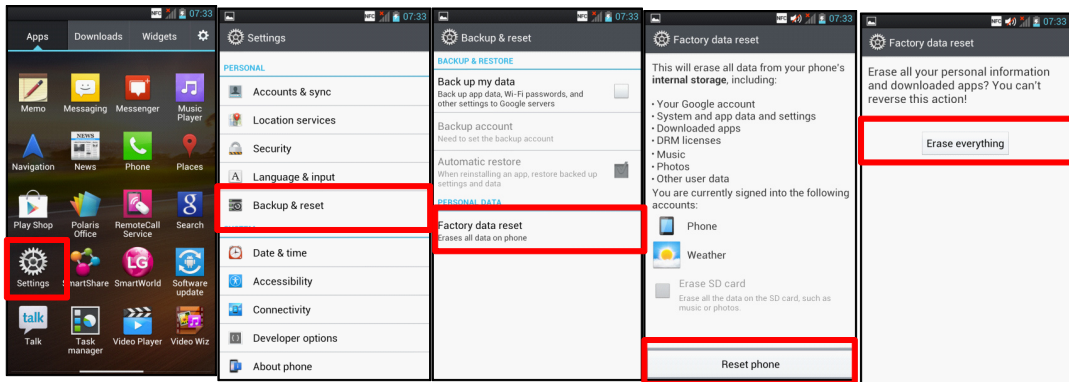
No	FAQ	Q&A
7	Q	Email registration does not work.
	A	<p>1. Check if wifi or data can be used because the e-mail service uses data.(For more information of WiFi, see No.9)</p>  <p>2. Check e-mail address password (for more information, see No.6)</p> <p>3. Check server type(IMAP, POP3, SMTP, Exchange) and address(ex. imap.naver.com) of email account. (for more information, see No.6)</p> <p>4. For Exchange account, check server address and security policy information to email server manager.</p>
8	Q	Apps not in use appear as programs in use even when I kill them.
	A	<p>It is because service is in progress from back ground of the application.</p> <p>For example, it is because e-mails and calls must be informed to the user even if kill is in progress.</p>

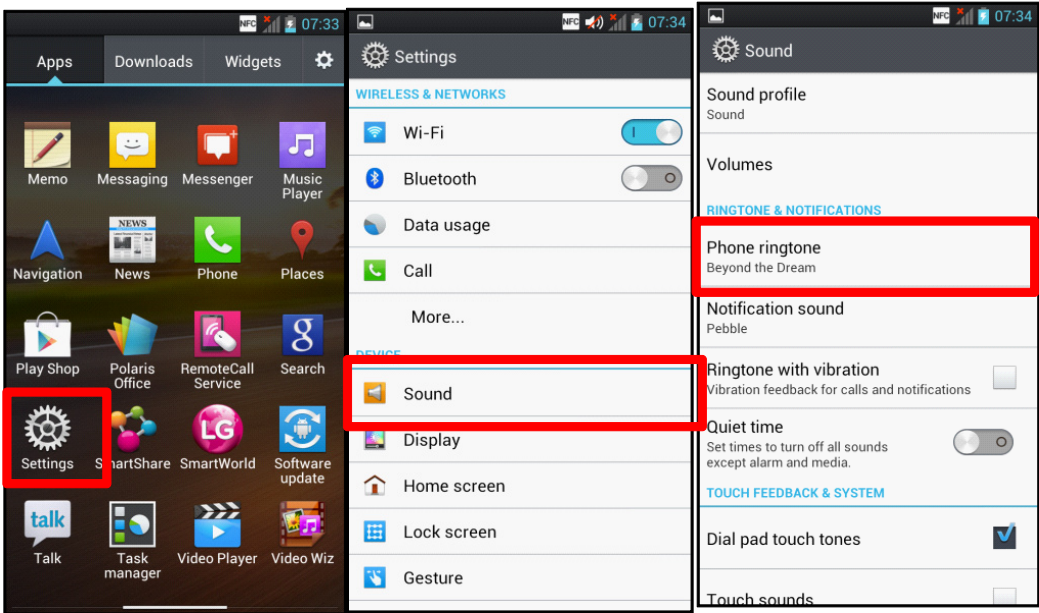
No	FAQ	Q&A
9	Q	<p>Wi-Fi connection does not work properly.</p>
	A	<p>Wi-Fi connection glitches result from many causes. Check out the following.</p> <ol style="list-style-type: none"> <li>1. Check out if Wi-Fi is turned on. (Picture 1)</li> <li>2. Check if business specialized AP, thus NESPOT, Olleh KT, SKT, U+, etc. is connected to the AP. (picture. 2)</li> <li>1) If the security type of this AP is on Open, it can be automatically connected without entering another password, but WiFi can't be used if the unit isn't certified from the AP. Connect with another AP.</li> <li>3. Entered information on the PHONE can simply be different from the AP information.</li> <li>1) Check if AP information which is to be connected, thus Security type, password is precisely entered on the PHONE.(picture. 3)</li> <li>2) AP information might be newly updated. Click the corresponding AP and choose "Forget", press "Option key &gt; Scan" button and update the AP list. After that, attempt connection.(picture. 3)</li> <li>3) Once connection is completed, you can check it on the screen as shown in figure 4.</li> </ol> 




No	FAQ	Q&A
10	Q	What should I do to install the PC Sync Program?
	A	<p>If device is attached to PC, you can see a window for setting USB Connection type. If LG Software is selected, a window pops up where you can download PC suite program to PC. Select download then PC Suite program can be downloaded through the Internet and starts to be installed. Here, PC should be connected to the internet.</p> <div data-bbox="454 779 1321 1317">  </div>
11	Q	What should I do to install the Phone Driver?
	A	<p>Download a USB Driver from the website of your service provider.  Remove the USB Cable and run the USB Driver installation file.  Once installed, connect the USB cable to your PC and the phone.</p>

No	FAQ	Q&A
12	Q	How to connect internet/data network?
	A	<p>You can check the Internet / Data network in two ways.</p> <ol style="list-style-type: none"> <li>1. Go Setting (figure 1) &gt; Data Usage &gt; Mobile Data and check if Mobile Data is turned 'On'. (figure 2)</li> <li>2. Go Settings &gt; More (figure 1) &gt; Mobile networks (figure 3) &gt; Data enabled (figure 4) and check if it is 'check'.</li> </ol> <p>If it is 'unchecked', switch it to 'check'.</p> 
13	Q	What should I do to connect the PC Sync program with the phone?
	A	<p>After connecting USB cable, it automatically works through PC Software selection &gt; PC Suite execution for connection mode.</p> <p>If it's not automatically connected, choose Connect Phone selection &gt; USB Cable Connection on the PC Suite main screen.</p> <p>Or, connection can progress through Connect Phone selection &gt; Bluetooth Connection &gt; Phone to be connected selection of Bluetooth On &gt; Discoverable On &gt; PC Suite main screen.</p>

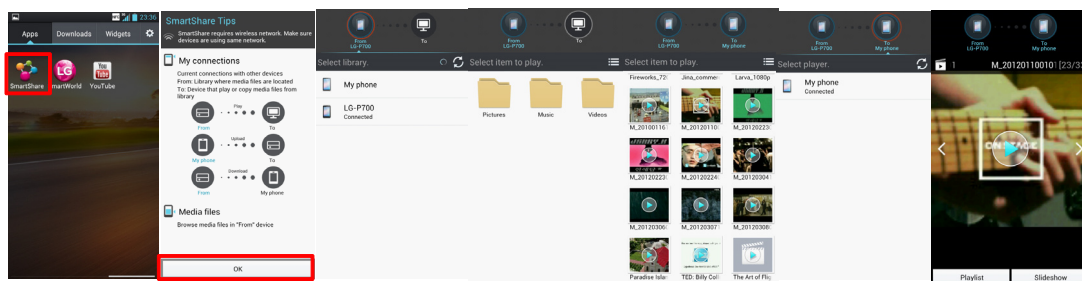


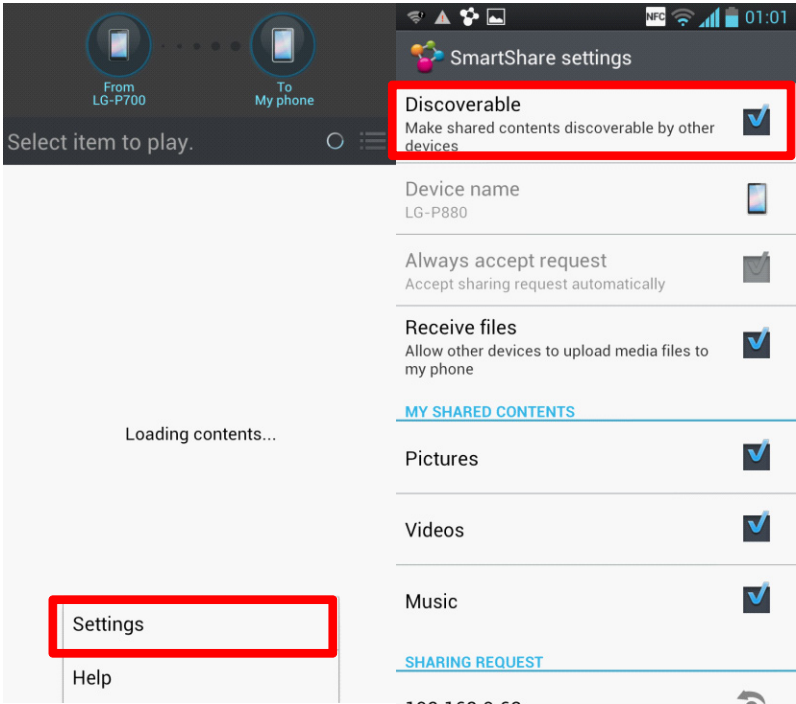
No	FAQ	Q&A
14	Q	Can I change the language setting?
A		<p>You can change language through Settings - Language &amp; input - Language</p> 
15	Q	What should I do for Reset and Factory Reset?
A		<p>Try the following for Reset.</p> <p>It can be done through Settings - Backup &amp; Reset - Factory data reset - Phone reset</p> <p>Factory Reset can be done as below.</p> <p>When phone is powered off, press the bottom volume key and power key at the same time. Once LED turns on the bottom key, press home key to run.</p> 

No	FAQ	Q&A
16	Q	What should I do to change the bell sound?
A		<p>It can be changed through Settings - Sound - Phone ringtone.</p>  <p>The first screenshot shows the home screen with various app icons. The 'Settings' icon (a gear) is highlighted with a red box. The second screenshot shows the 'Settings' menu with options like Wi-Fi, Bluetooth, Data usage, Call, and Sound. The 'Sound' option is highlighted with a red box. The third screenshot shows the 'Sound' settings page with options like Sound profile, Volumes, Phone ringtone (highlighted with a red box), Notification sound, Ringtone with vibration, Quiet time, and Touch sounds.</p>
17	Q	Is it compatible with other devices?
A		<p>Basically, compatible devices are as follows. Devices authorized by Bluetooth and DLNA, devices authorized by WiFi direct, and TV connection using MHL Cable etc.</p>


No	FAQ	Q&A
18	Q	What should I do to use HDMI?
	A	<p>1. Prepare for MHL Gender, HDMI Cable, and charger as shown in the picture.</p>  <p>2. Connect as shown in the picture.</p>  <p>3. Connect HDMI terminal to devices(monitor, TV), and change to the external input mode(HDMI mode) on the device.</p> 

No	FAQ	Q&A
19	Q	What should I do to solve HDMI error?
	A	<ol style="list-style-type: none"> <li>1. Confirm that HDMI Cable, MHL Gender, TA are properly connected.</li> <li>2. Confirm that external input mode of devices(monitor, TV) is set to HDMI mode.</li> </ol>
20	Q	What should I do to use SmartShare?
	A	<p>Pictures, videos and musics can be shared among DLNA-certified devices connected to same network by using SmartShare.</p> <ol style="list-style-type: none"> <li>1. Select SmartShare after pressing Applications.</li> <li>2. Select library that has contents on From (My Phone, other phones, PC etc.)</li> <li>3. Select wanted contents through searching library.</li> <li>4. It can be played through selecting player in the player set up category.</li> </ol>



No	FAQ	Q&A
21	Q	What should I do to deal with Smartshare error?
	A	<p>1. P880 can't be searched on other devices.</p> <ul style="list-style-type: none"> <li>- Confirm whether Discoverable is checked on Setting.</li> <li>- Confirm if you approved P936 on other devices' set up.</li> </ul> <p>2. Even there is a device in the same AP, no device is searched on From.</p> <ul style="list-style-type: none"> <li>- Confirm if the connected devices support DLNA, and check DLNA server function (DMS) is on.</li> <li>- Searching may not be smooth if network status is not good.</li> </ul> <p>3. File doesn't get played.</p> <ul style="list-style-type: none"> <li>- It could be a type of file that the device doesn't support.</li> </ul> <p>4. Uploading can't be done.</p> <ul style="list-style-type: none"> <li>- Uploading DMS may not support uploading function.</li> </ul> 

No	FAQ	Q&A
22	Q	My battery runs out so fast.
	A	<ol style="list-style-type: none"> <li>1. Where few antenna bars are displayed(shadow zones), the phone is considered to be located far from the network. To send and receive the phone's positioning information, more power is needed. Thus, batter power is consumed faster.</li> <li>2. When the screen(LCD Back Light) is turned on, battery power runs out faster. For example, when the electric current of the LCD Back Light is 100mA/h, a 1500-mA battery can last for 15 hours with the LCD being turned on. The longer the screen timeout is set, the faster the battery runs out. So, shorter duration of screen timeout is advisable.</li> <li>3. Even when ending an app by pressing the Home key, the app keeps running in the background, consuming battery power. You are advised to end apps using the Clear/Back key.</li> <li>4. Rooting leads to a Super User Authority in Android system domain, which may cause data modification over the battery control domain, consuming the battery power faster.</li> <li>5.Apps subject to regular data updates, e.g. Dodol Phone, NateOn, Kakao Talk and Stock/Weather Widgets may consume the battery power faster, if the update cycle is short.</li> <li>6. If several applications are installed at once, use after restarting and battery consumption might become faster if several wizet applications are installed on the background.</li> </ol>
23	Q	What should I do to find out the schedule for new releases of OS or SW?
	A	It can be checked at local LG Electronic service centers or LG Mobile homepage notice page.

No	FAQ	Q&A
24	Q	What should I do to update SW?
	A	<p>There are 2 ways for End Users to update SW(Web Download / FOTA)</p> <ul style="list-style-type: none"> <li>- Web Download : After connecting cellphone to computer through USB, install new binary gained through internet by using SW Update Tool.</li> <li>- FOTA : Without need of additional computer, download FOTA Package to cellphone through phone's network(3G, 4G WIFI etc.) and let it install &amp; Update by itself.</li> </ul> <p>The 2 ways are supposed to keep User Data.</p> 
25	Q	What about the warranty period and limit?
	A	Free warranty period lasts for one year as from the date of purchase. Any malfunction or failure resulting from external shocks may incur some repair charges even within the free warranty period.
26	Q	What kinds of phone accessories are there?
	A	You can purchase those at nearby LG Electronics Service Centers or online only.

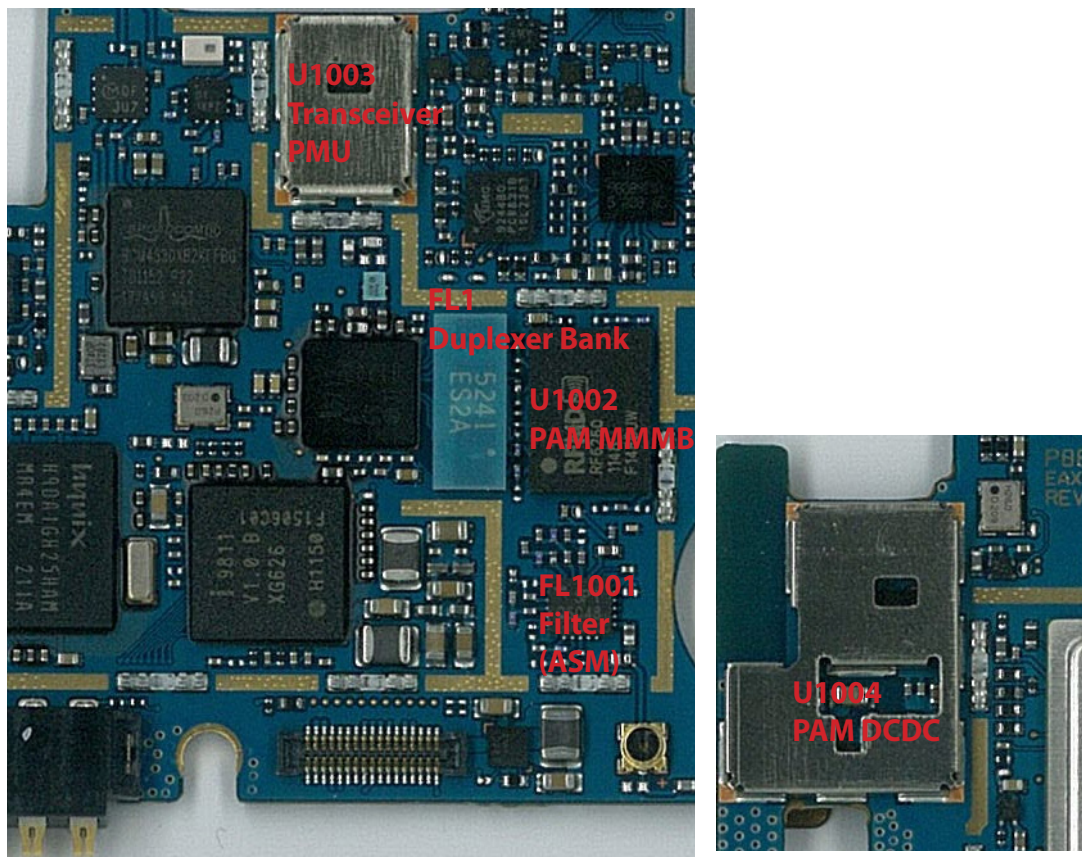
### 3. CIC AND SERVICE CENTER

No	FAQ	Q&A
We ask you for more than 3 Qs&As expected regarding new products, features and other specific things.		
27	Q	Quadcore seems to waste electrical power?
	A	It is true that electrical power is consumed much when Quadcore runs but it is more effective with respect to total amount of work. (it takes short to deal with the same amount of work.)
28	Q	How can I use NFC?
	A	Generally, Card Emulation mode enables to use credit card with SIM card, but this is only available when provider supports related service.
29	Q	What are the other Multimedia functions provided P880?
	A	New function has been applied to Video Player and Time Machine Shot is also provided in Camera. Also you can enjoy 7.1CH Audio by connecting Home theater.



## 4. TROUBLE SHOOTING

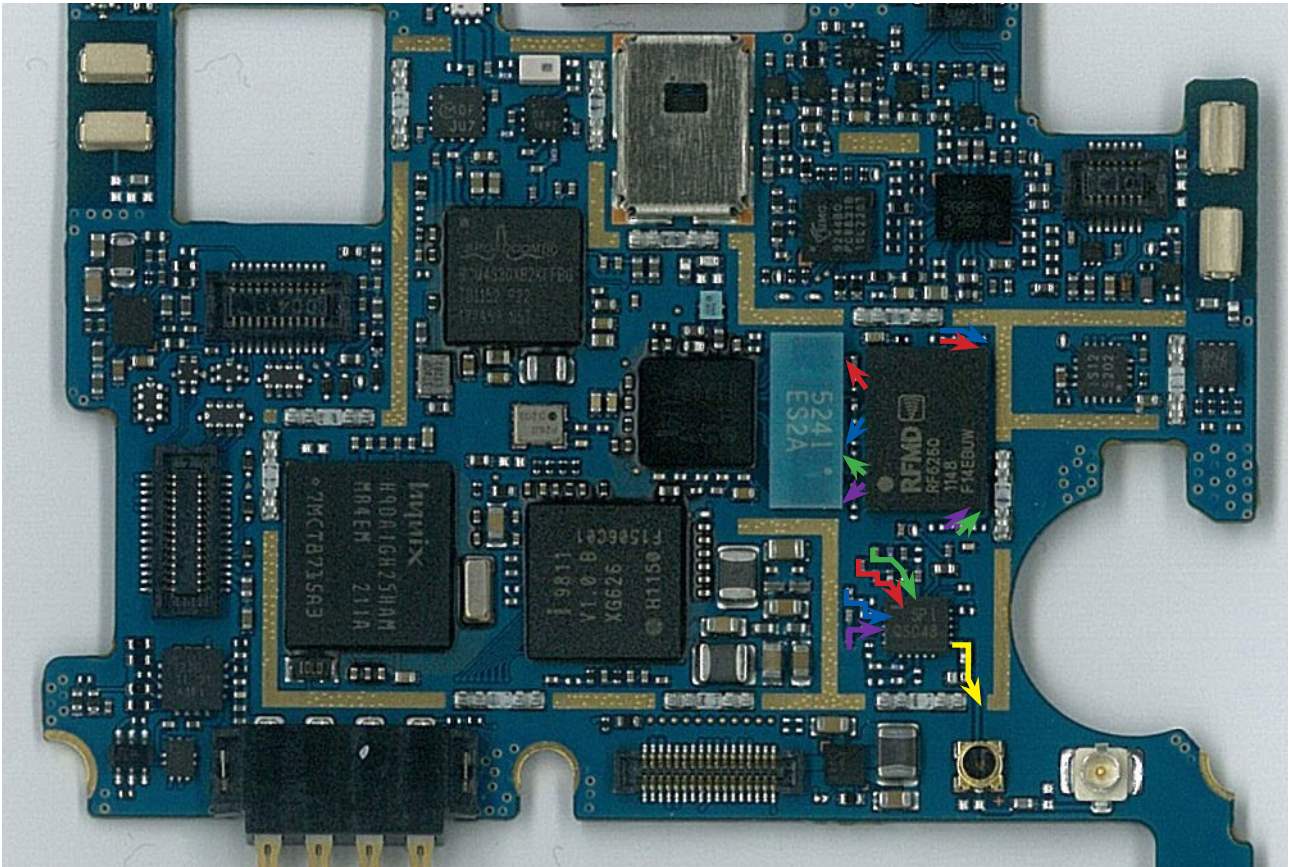
### 4.1 RF Component



RF component (WCDMA / GSM)

Reference No.	Description	Reference No.	Description
U1000	RFIC (Transceiver)	U1003	Transceiver PMU
FL1	Duplexer Bank	U1004	PAM DCDC
U1002	PAM MMB	FL1001	Filter (ASM)

### 4.2 SIGNAL PATH



WCDMA 1,2,5,8 Band TX Signal PATH

A. WCDMA 2100 TX PATH

B. WCDMA 1900 TX PATH

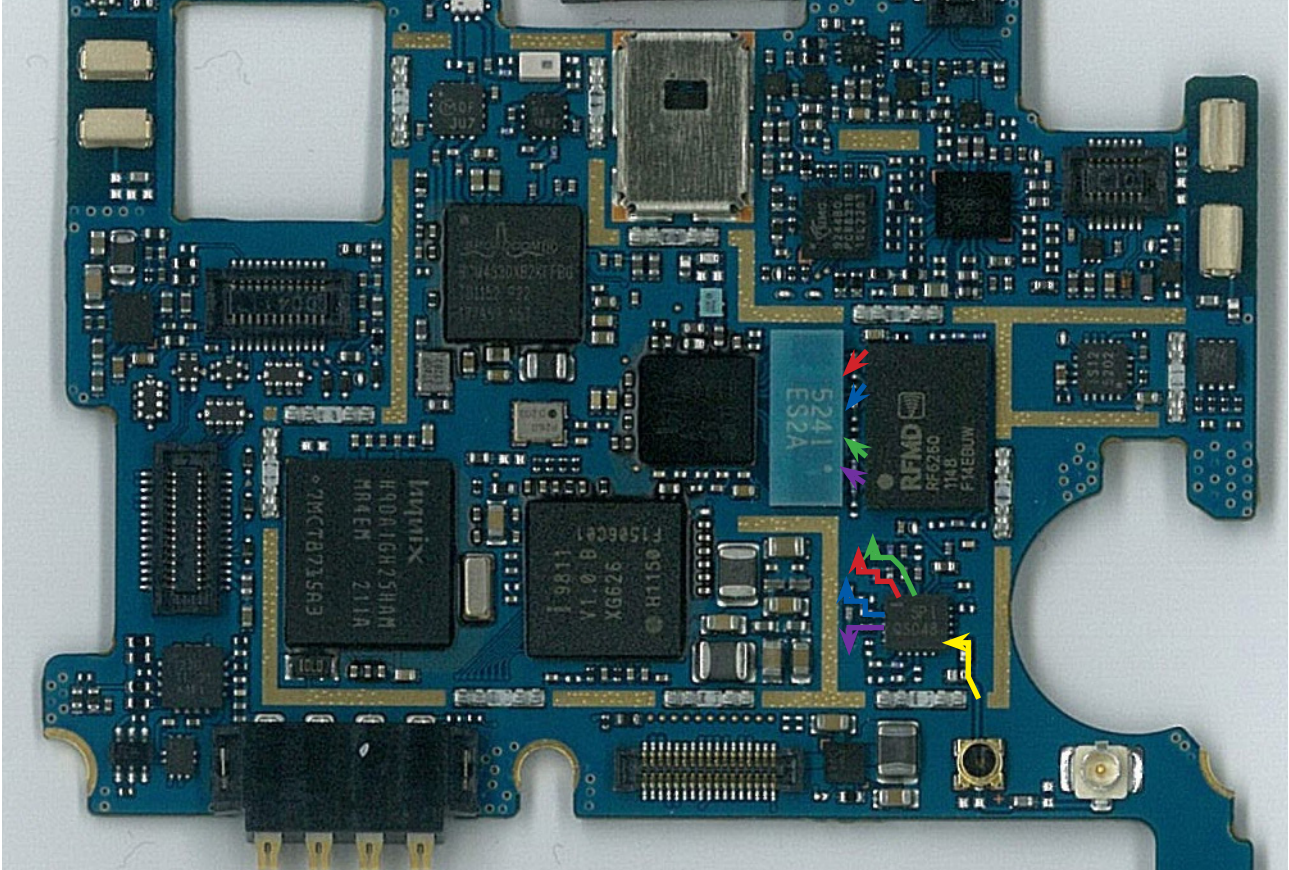
C. WCDMA 900 TX PATH

D. WCDMA 850 TX PATH

E. COMMON TX/RX PATH



## 4. TROUBLE SHOOTING



### WCDMA 1,2,5,8 Band RX Signal PATH

A. WCDMA 2100 RX PATH

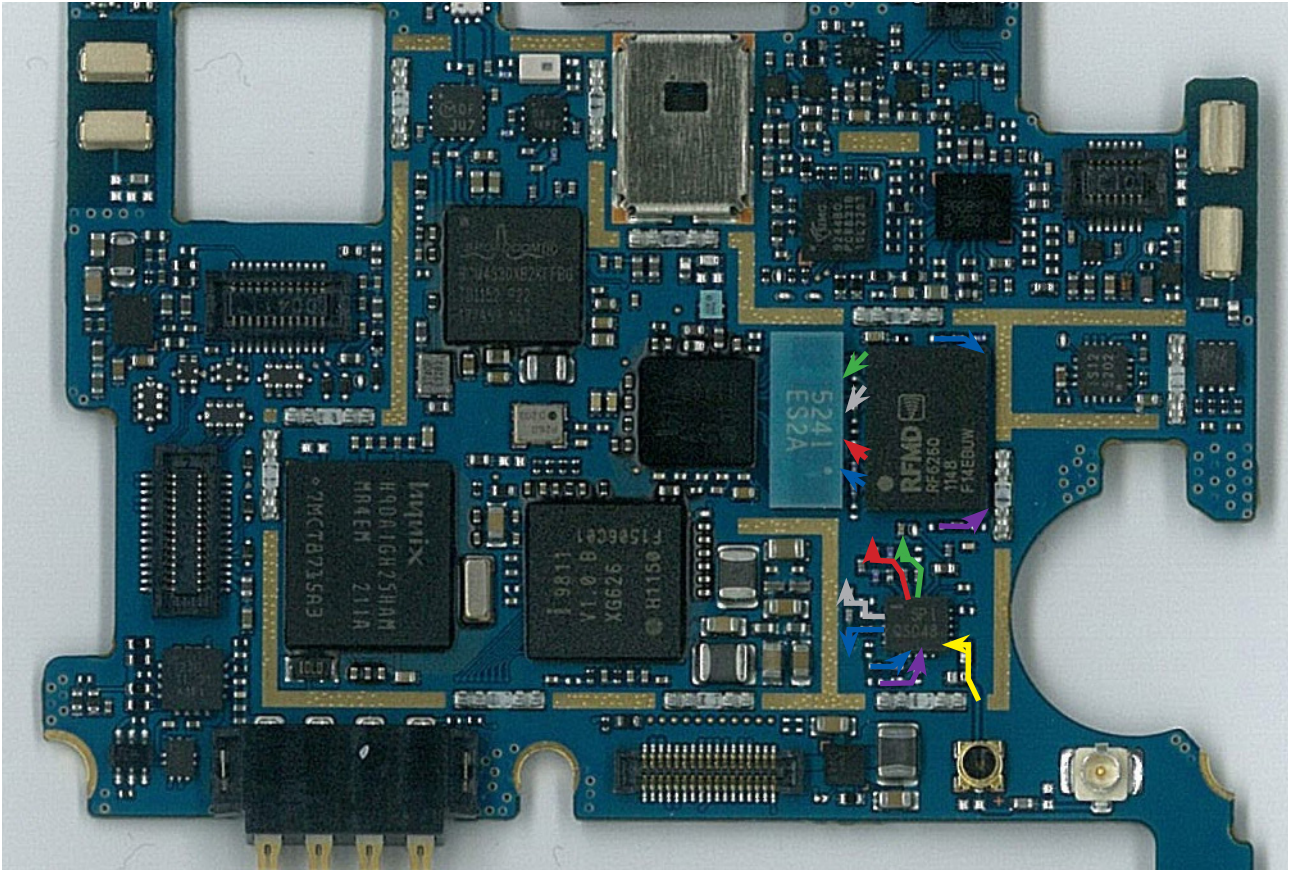
B. WCDMA 1900 RX PATH

C. WCDMA 900 RX PATH

D. WCDMA 850 RX PATH

E. COMMON TX/RX PATH

## 4. TROUBLE SHOOTING



### GSM 850,900,1800,1900 Band TX/RX Signal PATH

**A. GSM 850 RX PATH**

**B. GSM 900 RX PATH**

**C. GSM 1800 RX PATH**

**D. GSM 1900 RX PATH**

**E. GSM 850,900 TX PATH**

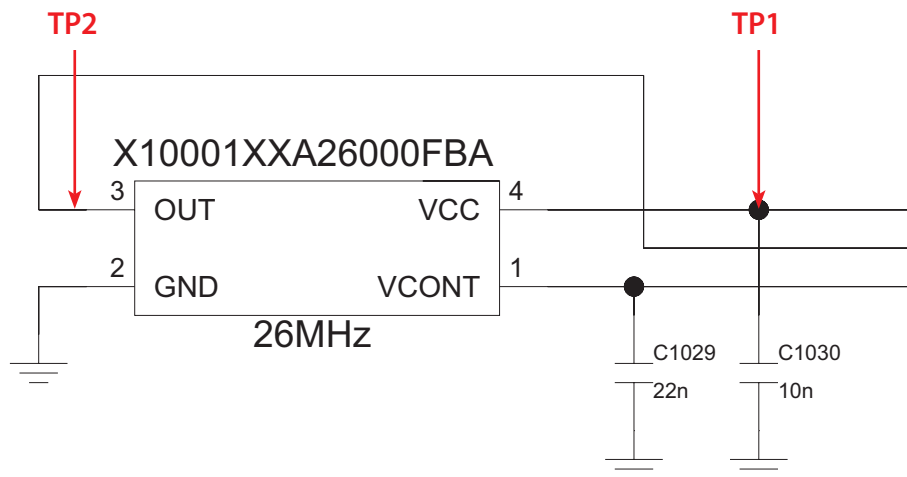
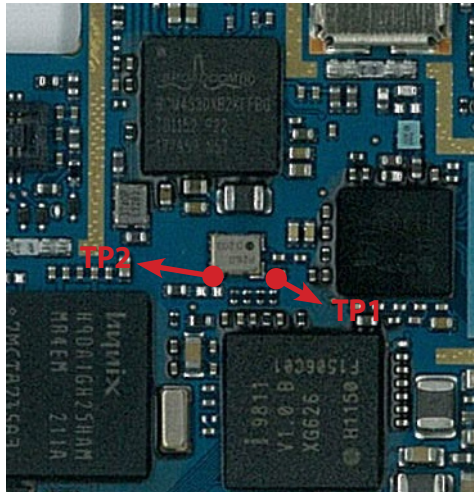
**F. GSM 1800,1900 TX PATH**

**G. COMMON TX/RX PATH**



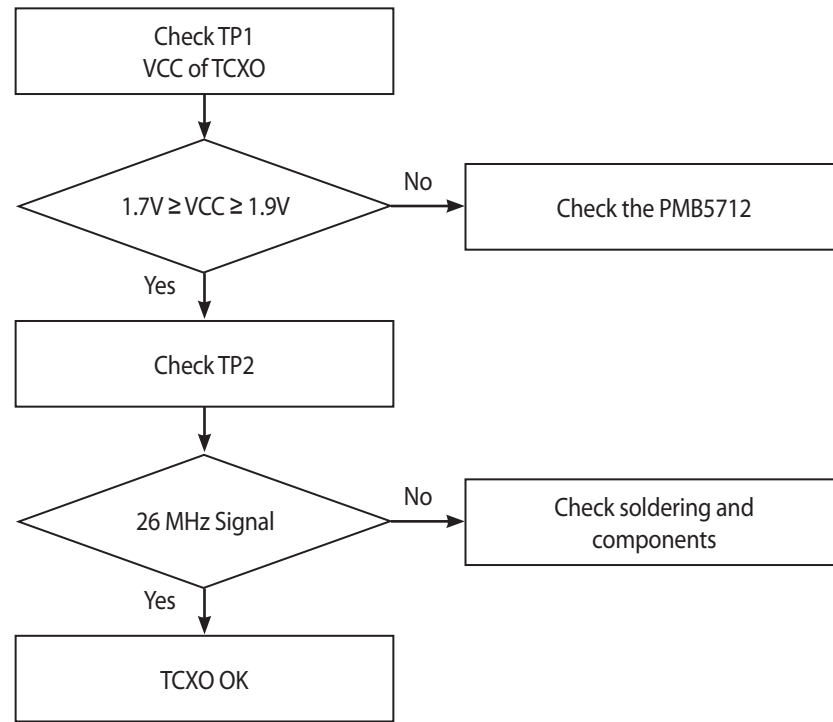
### 4.3 Checking TCXO Block

The output frequency (26MHz) of TCXO (X1000) is used as the reference one of PMB5712

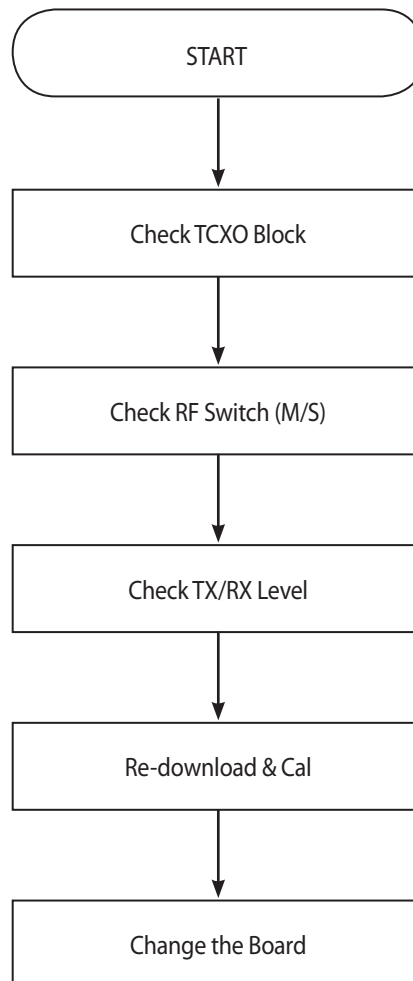


Schematic of the Crystal Part (26MHz)

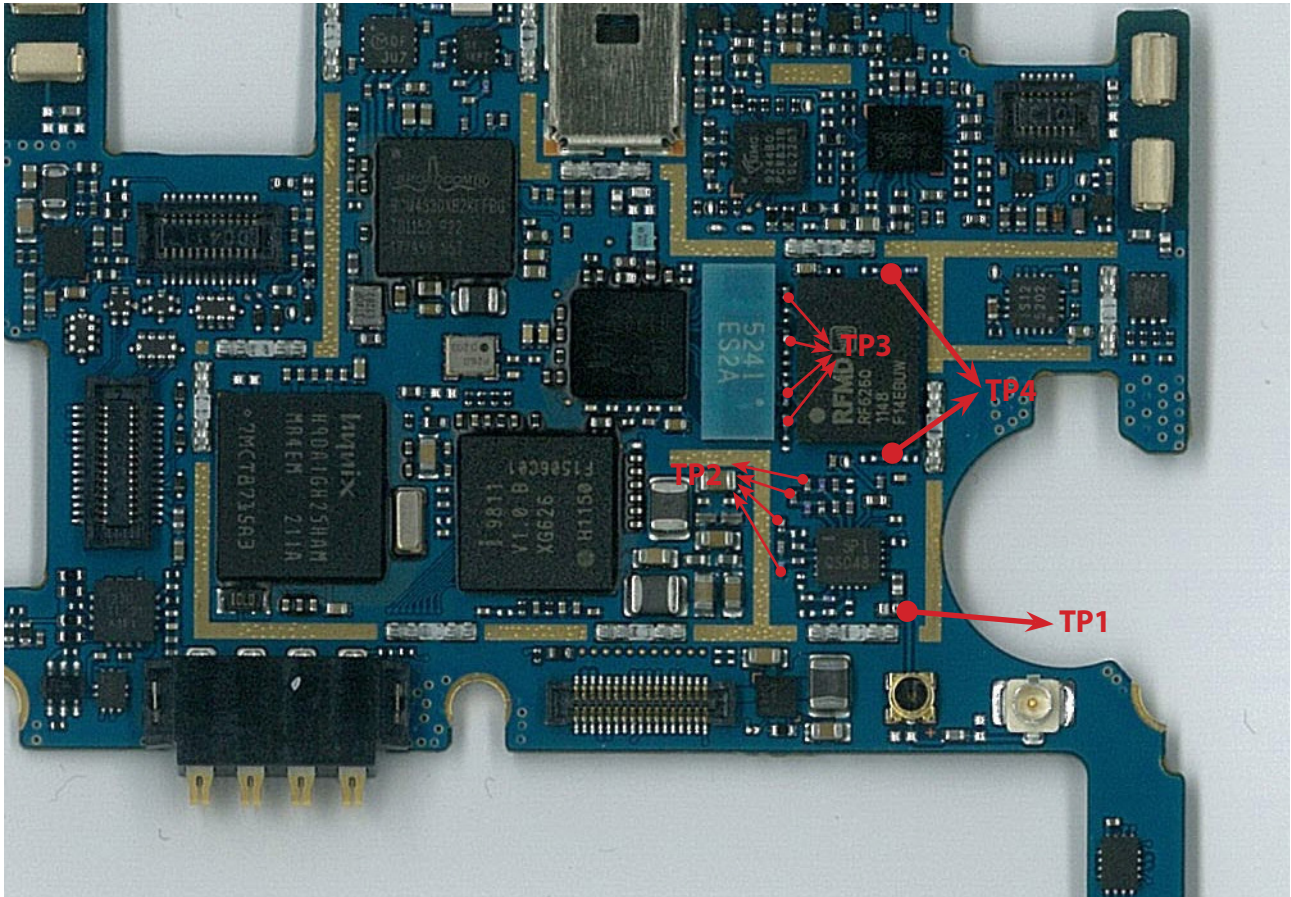
## 4. TROUBLE SHOOTING



### 4.4 Checking WCDMA Block



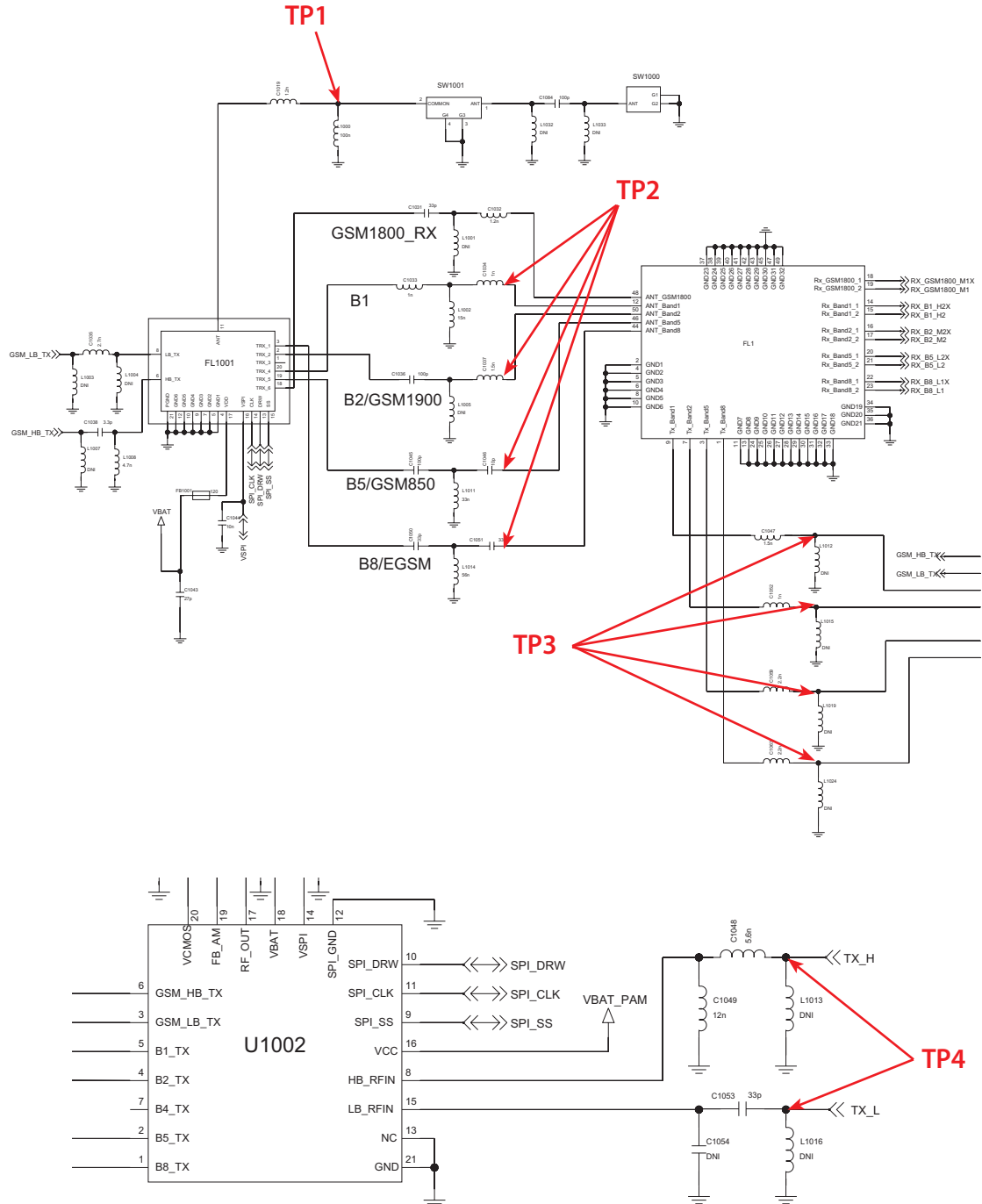
### 4.4.1. Checking RF TX Leve (WCDMA)



Test Point (TX Level)

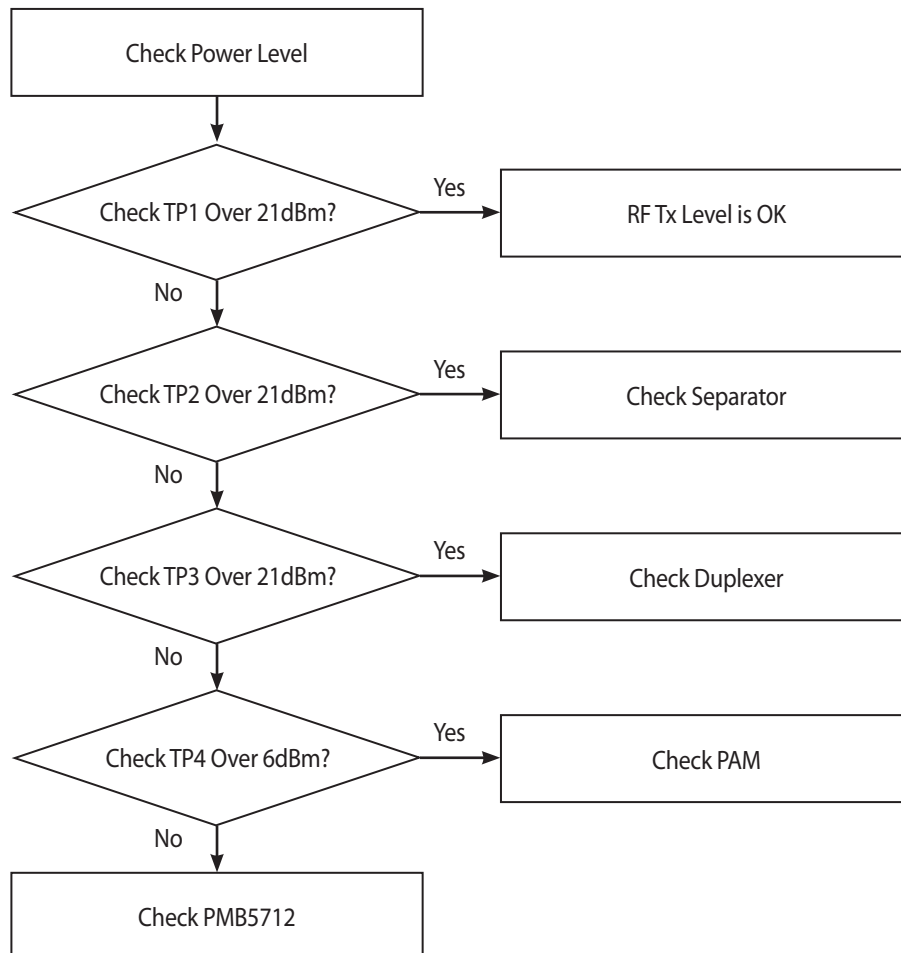


## 4. TROUBLE SHOOTING

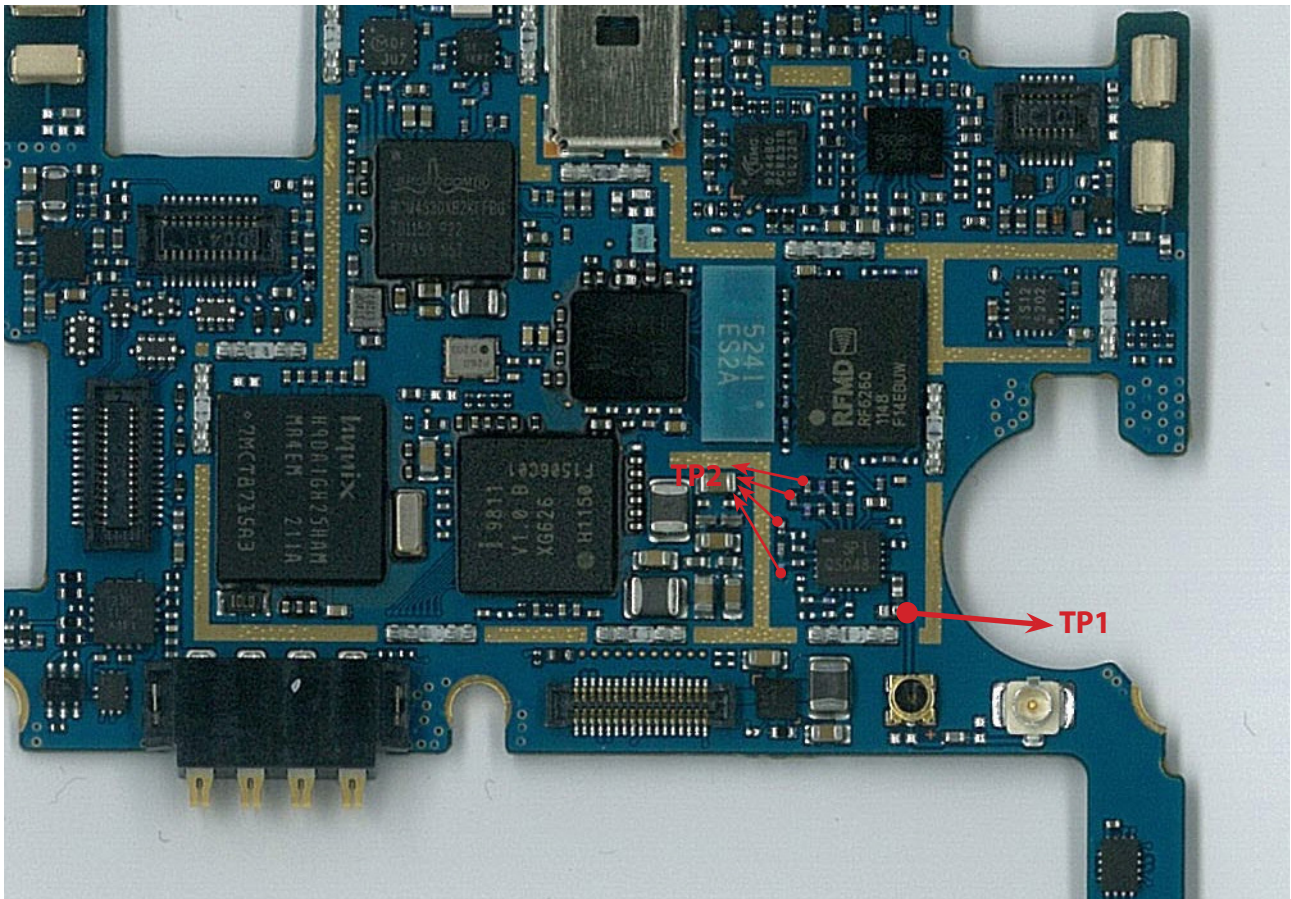


Schematic of WCDMA Band 1,2,5,8 Tx Block

For testing, Max power output is needed.

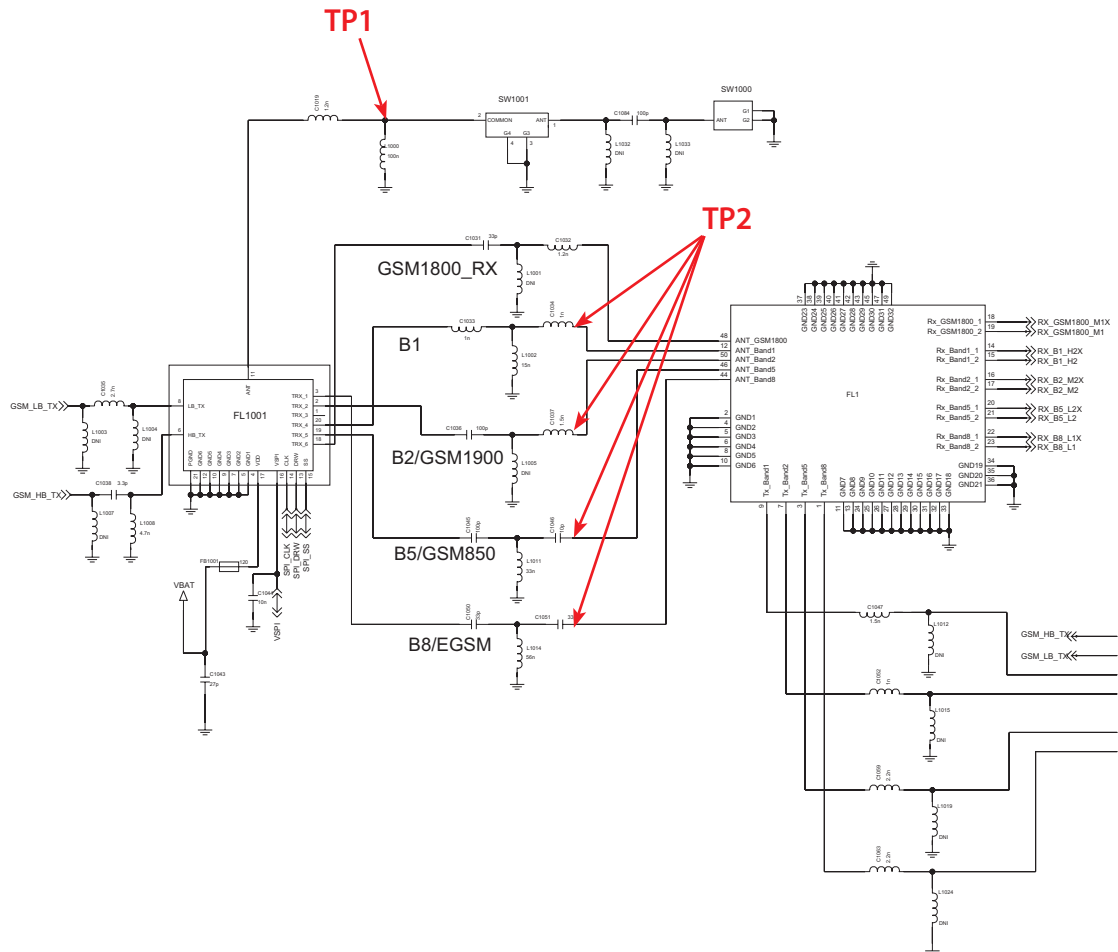


### 4.4.2. Checking RF Rx Level (WCDMA)



Test Point (Rx Level)

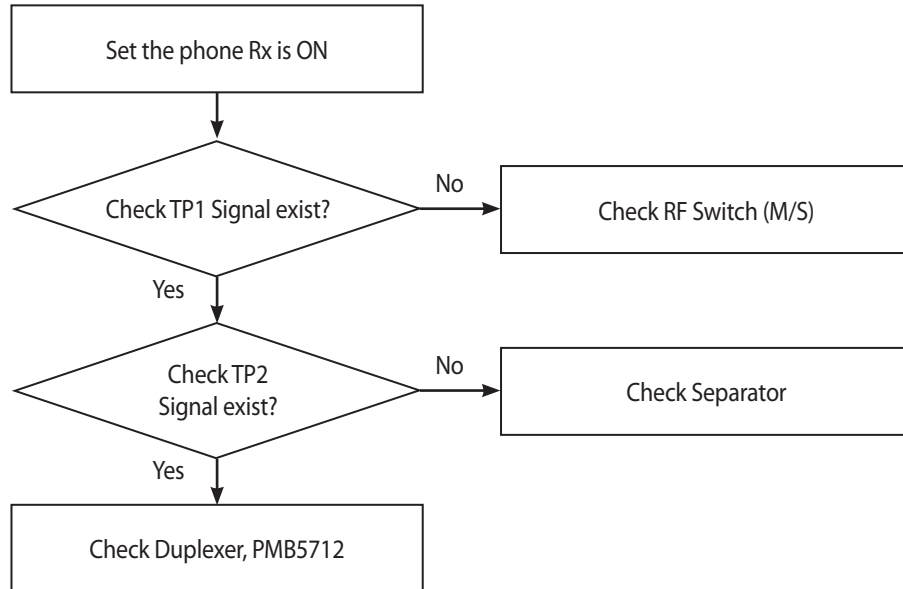
## 4. TROUBLE SHOOTING



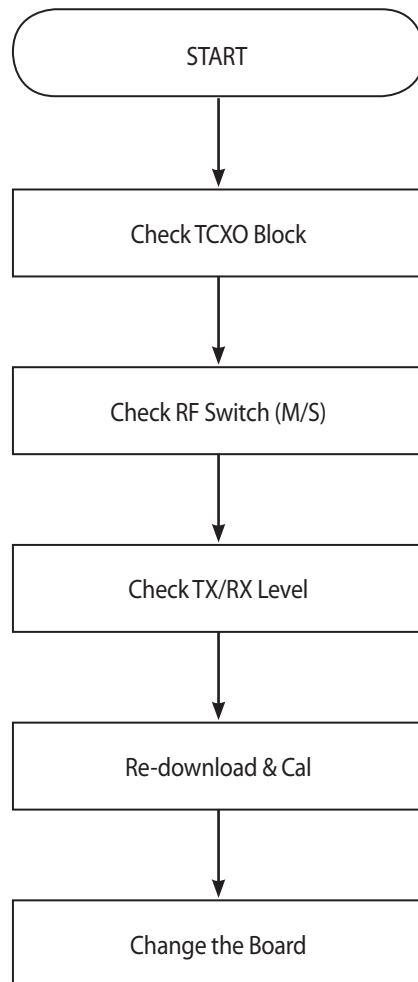
Schematic of WCDMA Band1,2,5,8 Rx Block

## 4. TROUBLE SHOOTING

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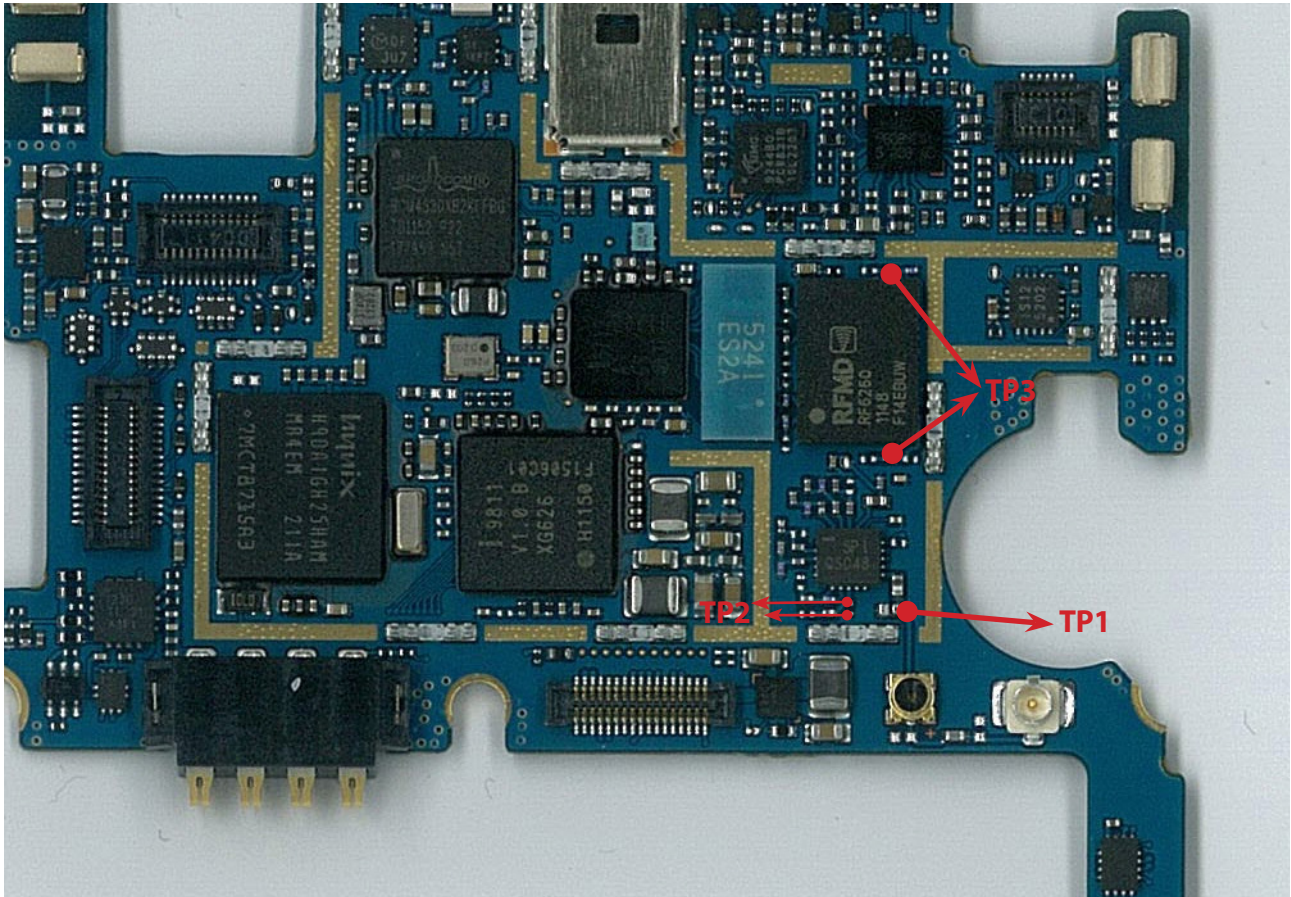


### 4.5 Checking GSM Block





### 4.5.1 Checking RF Tx Block

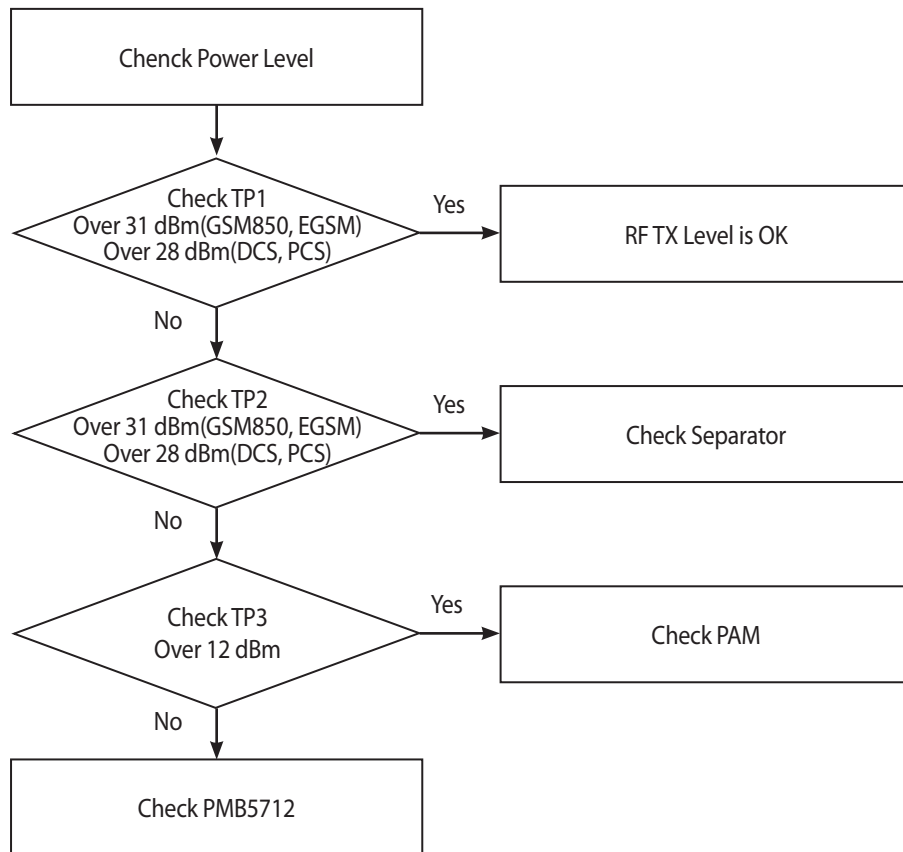


Test Point (Tx Level)

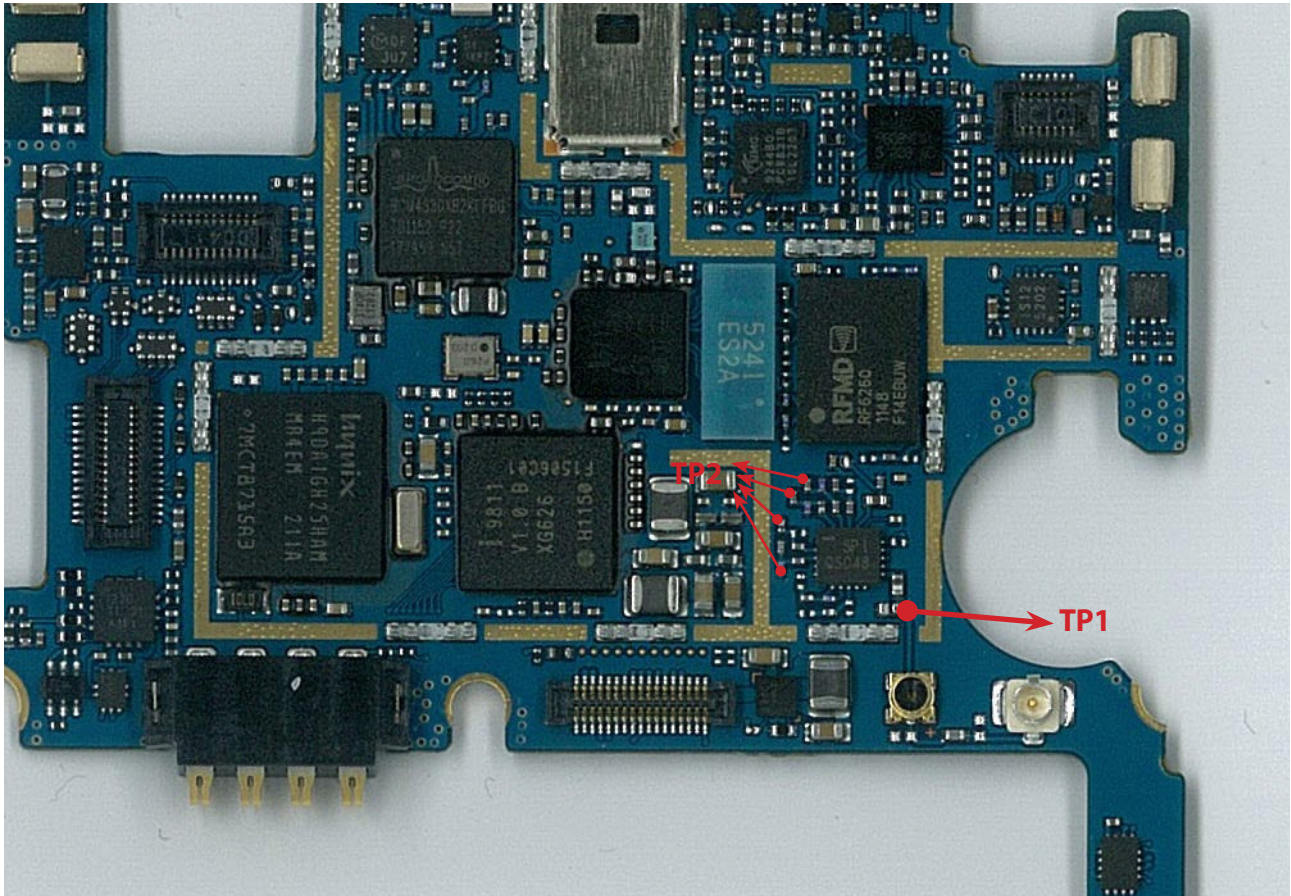




For testing, Max power output is needed

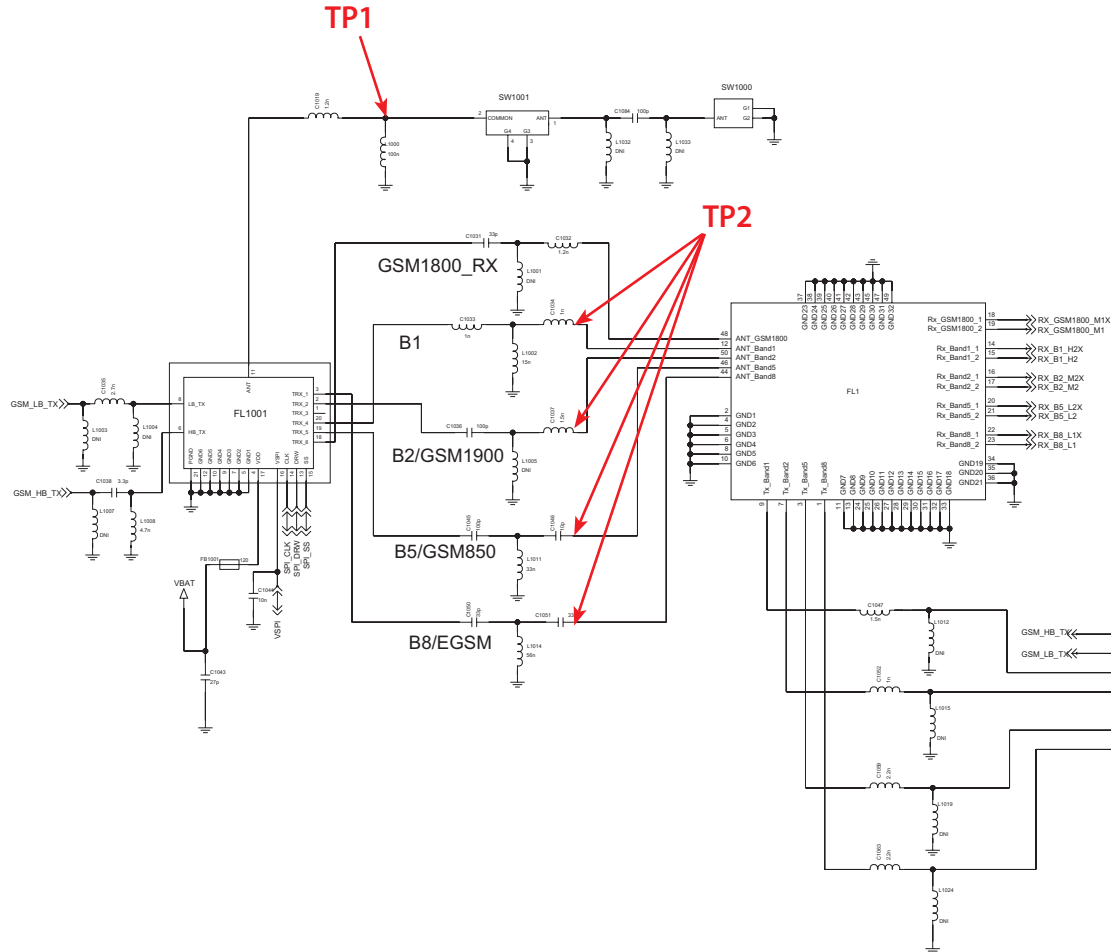


### 4.5.2 Checking RF Rx Block



Test Point (Tx Level)

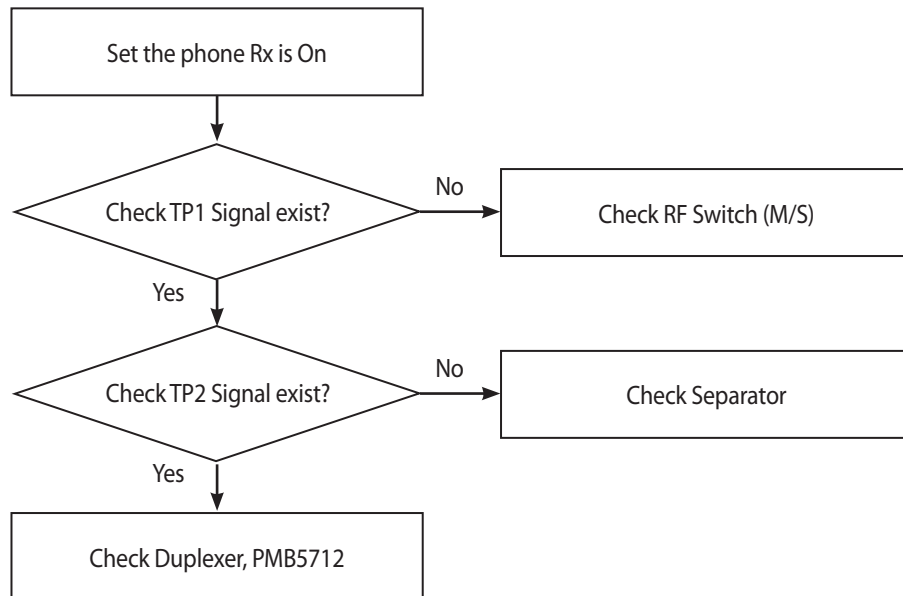
## 4. TROUBLE SHOOTING



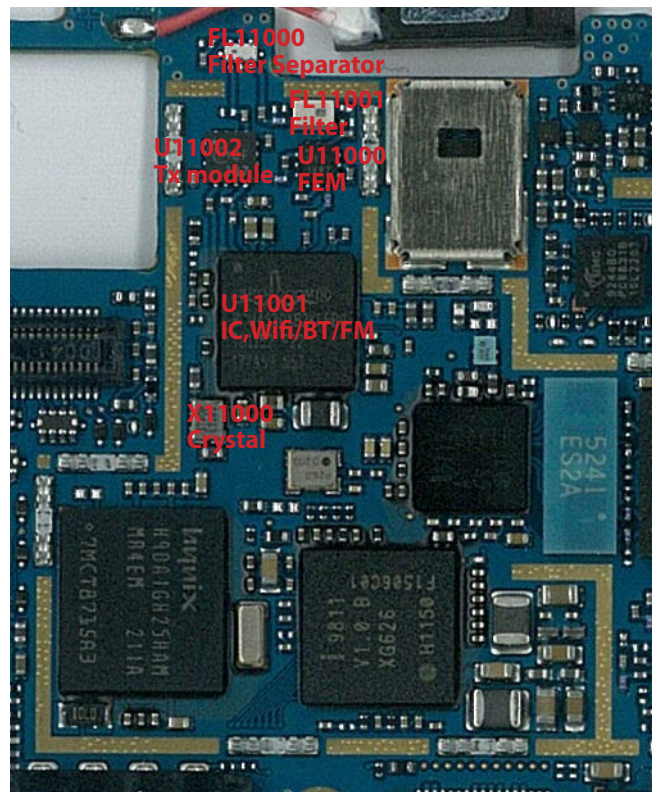
Schematic of GSM850/EGSM/DCS/PCS Rx Block

## 4. TROUBLE SHOOTING

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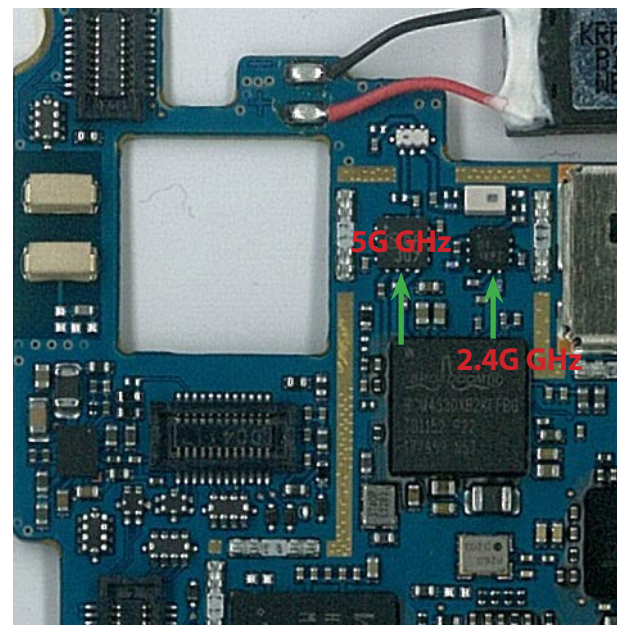
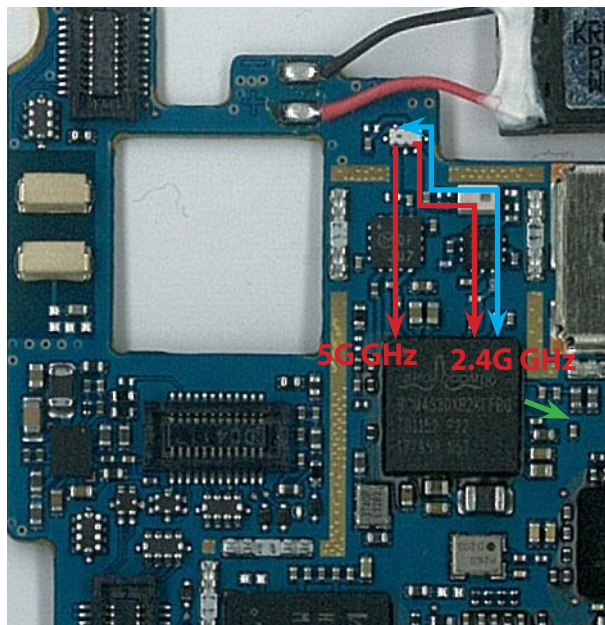
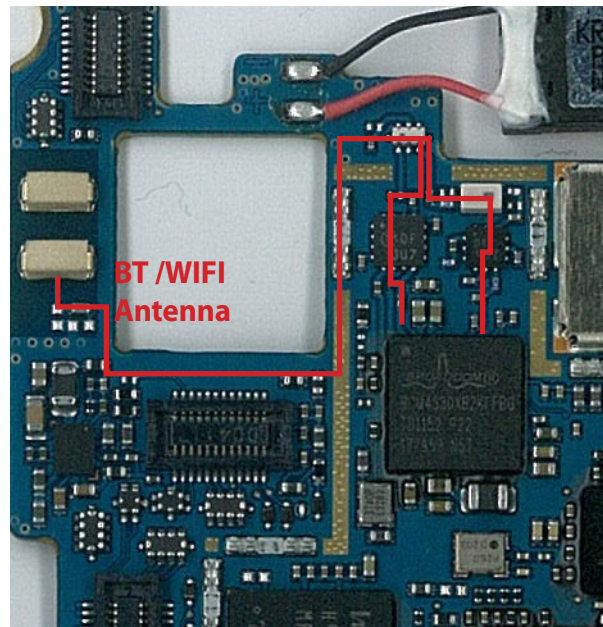
### 4.6. Wifi/BT/FM Module



Reference No.	Description	Reference No.	Description
FL11000	Filter Separator	U11002	Tx module
FL11001	Filter	X11000	Crystal
U11000	FEM	U11001	IC,Wifi/BT/FM



### 4.6.2 Wifi/BT/FM Signal Path



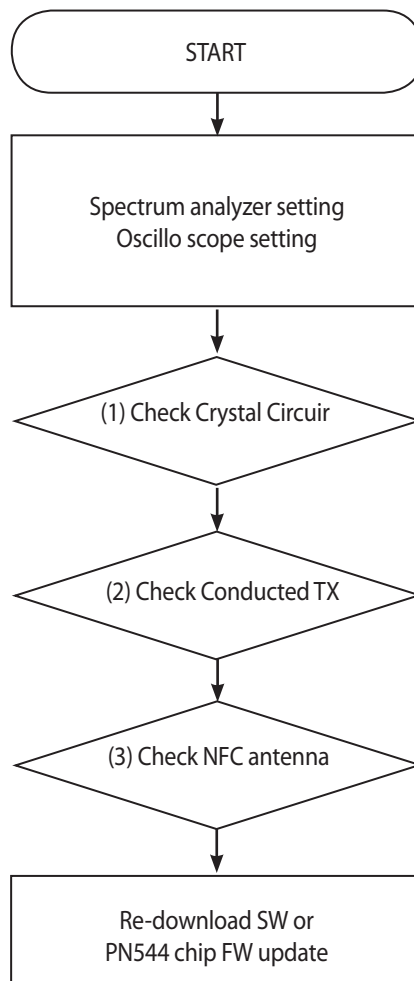
- BT
- WIFI
- FM

Wifi Rx/ BT RTx/ FM Signal Path

Wifi Tx Signal Path

### 4.7 NFC trouble

Check out the setting menu on the phone. If not, check Test points shown on the pictures.



### 4.7.1 Checking Crystal Circuit

Enter test mode `***#880***` -> NFC Test -> Set Test Environment ->  
Generate Continuous Emission -> Check pop up 'Test success : CE Test Start

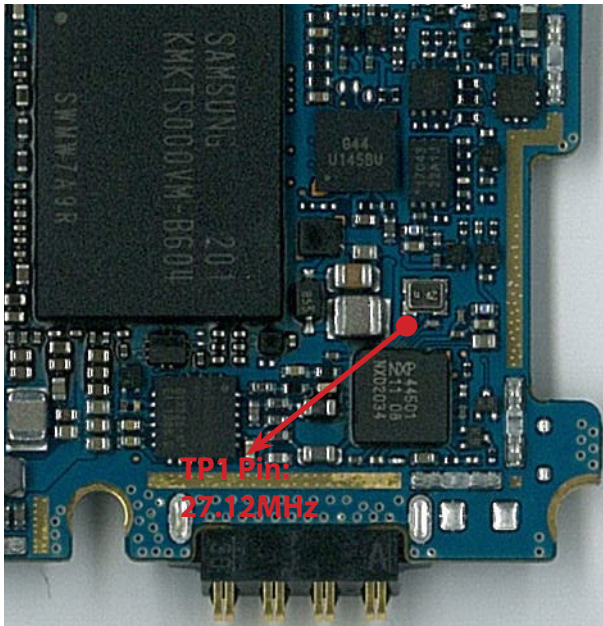


Figure 4.2.1

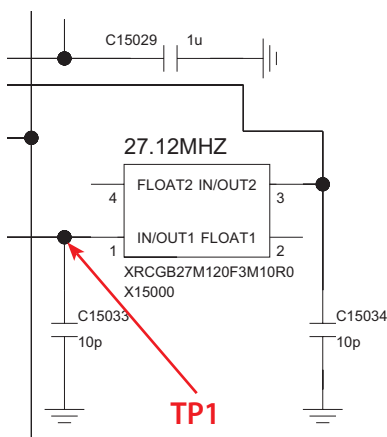
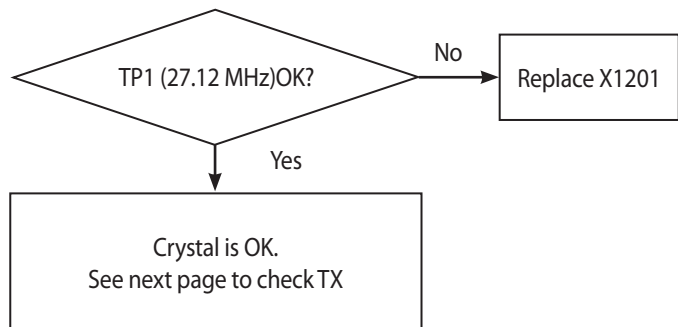


Figure 4.2.2

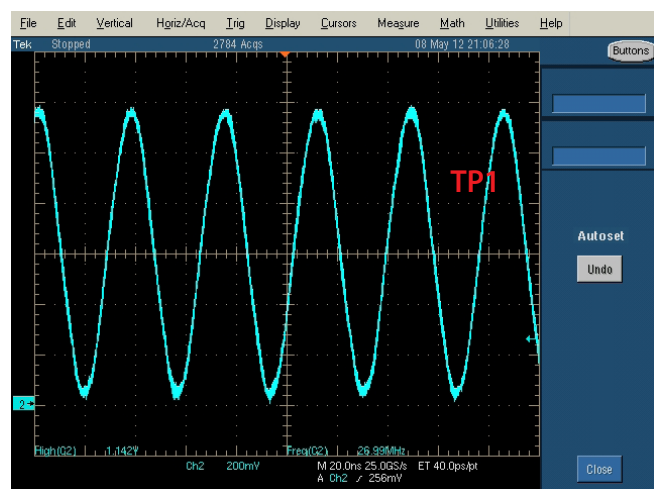


Figure 4.2.3



### 4.7.2 Checking conducted TX Power

Enter test mode \*\*\*#880#\* -> NFC Test -> Set Test Environment ->  
Generate Continuous Emission -> Check pop up 'Test success : CE Test Start'

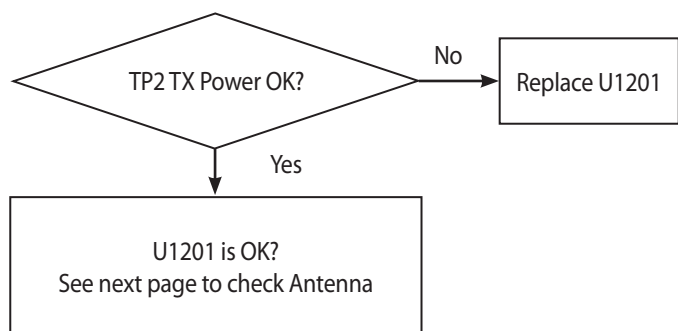
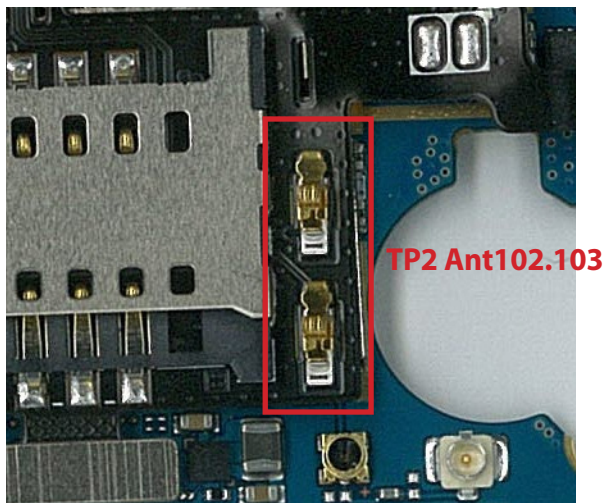
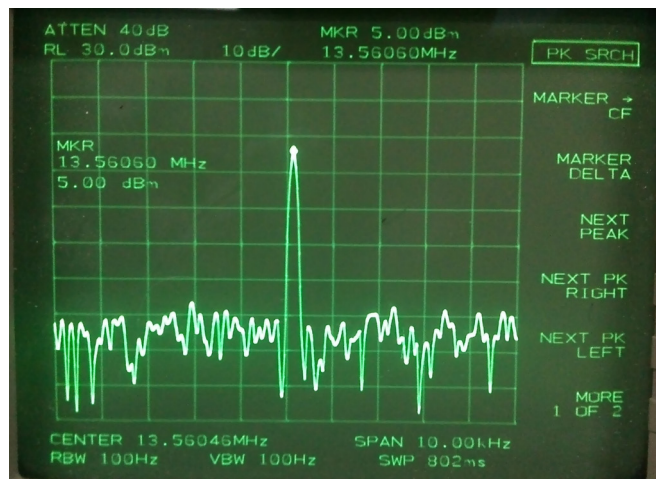
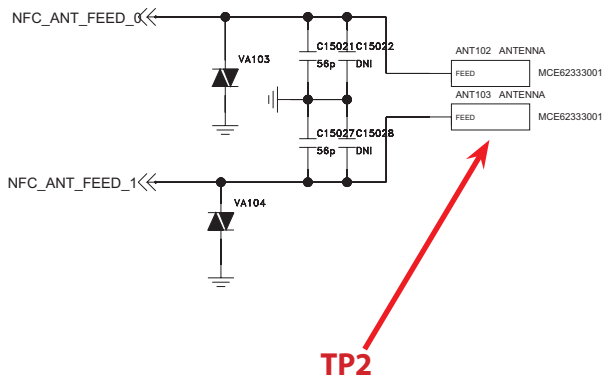


Figure 4.2.4

## NFC\_ANT\_FEED

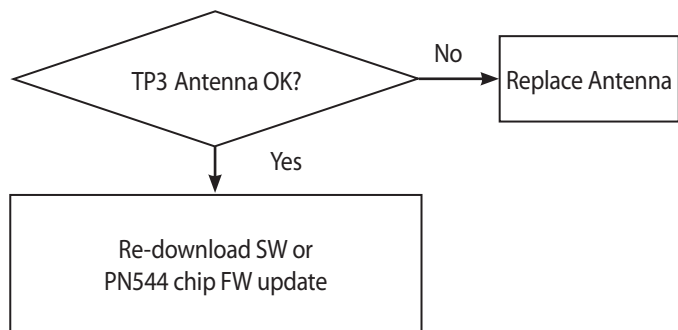


### 4.7.3 Checking NFC Antenna (Battery Cover)

Using LCR meter equipment (Hioki 3532 LCR meter)



TP3 NFC antenna



LCR	Inductance(L)	Capacitance(C)	Resistance(R)
Antenna	2.13uH ± 10%	11.85nF ± 10%	Under 1.5ohm

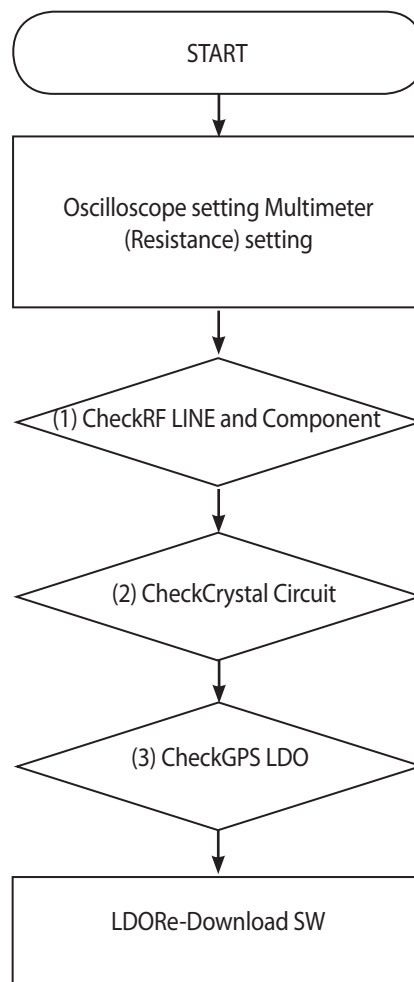
A displayed data isn't absolute value.

It has a deviation by means of equipment environment.

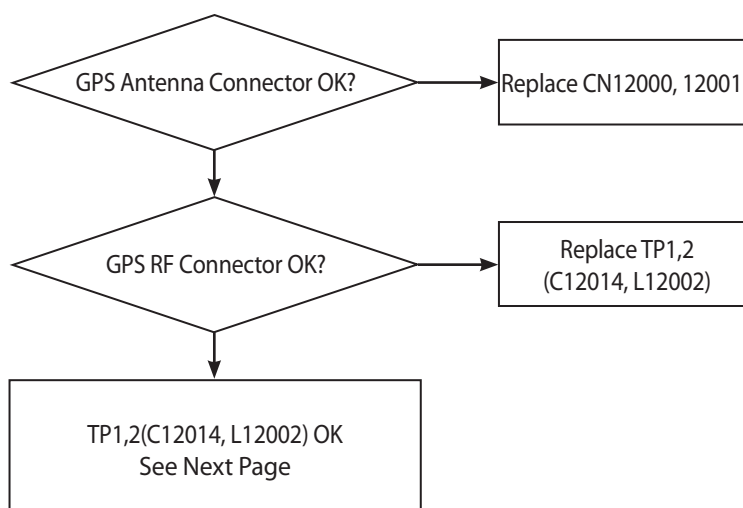
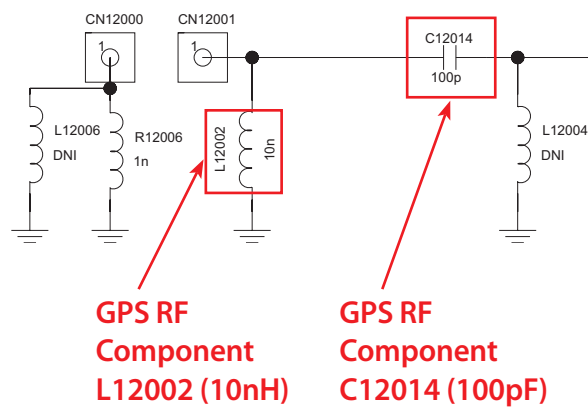
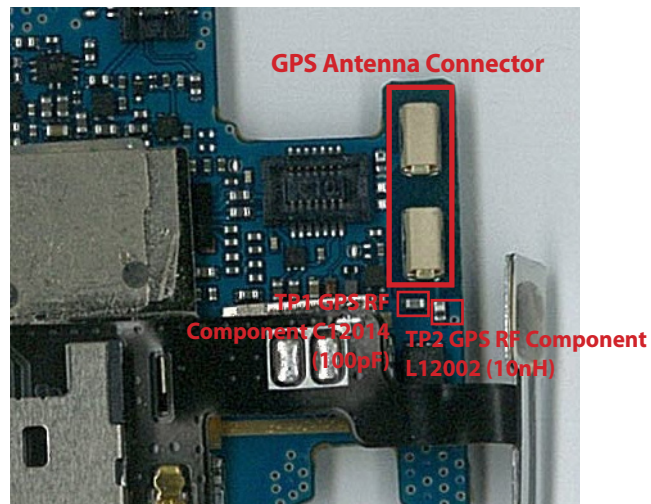
Therefore it should be compared with a normal sample.

### 4.8 GPS trouble

Check out the setting menu on the phone. If not, check Test points shown on the pictures.



### 4.8.1 Checking RF Line and Components

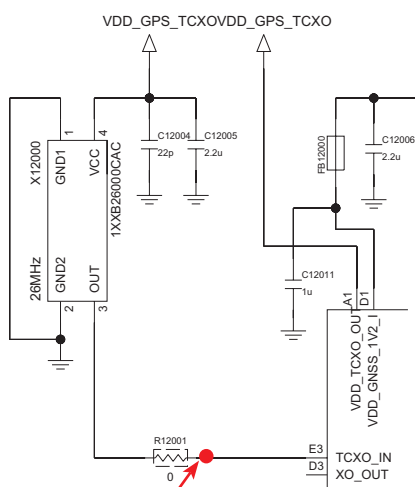
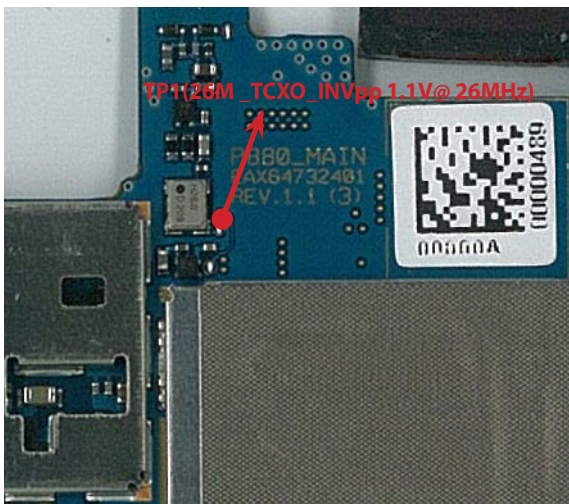


### 4.8.2 Checking Crystal Circuit

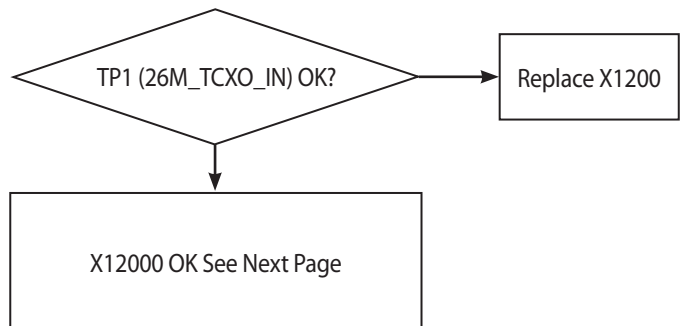
System Setting -> Location Service -> GPS satellites Check -> Enter test mode `*##880#` -> GPS Test ->

Positioning Test -> Setting Key 'Start GPS'

If Setting is right, mobile should display and blink GPS icon



**TP1 26M\_TCXO\_IN**  
**Vpp 1.1V @ 26MHz**

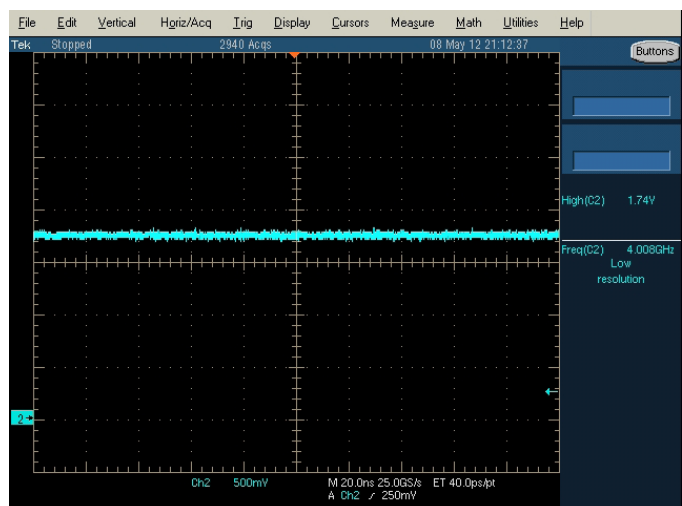
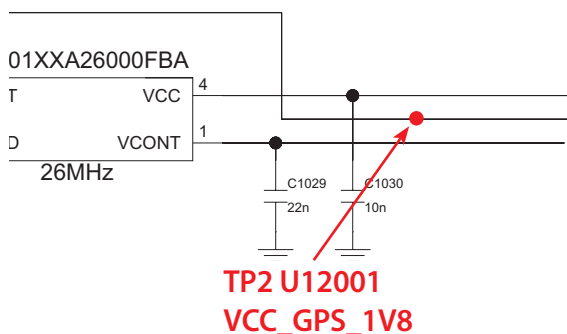
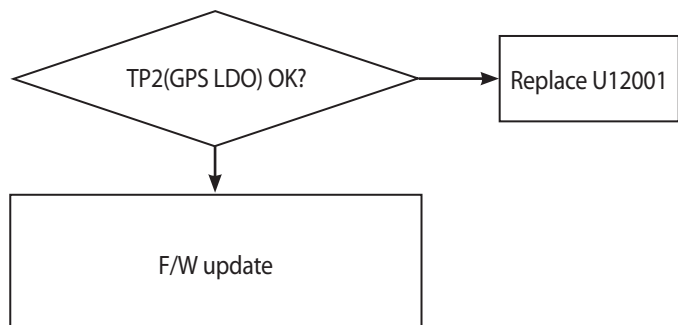
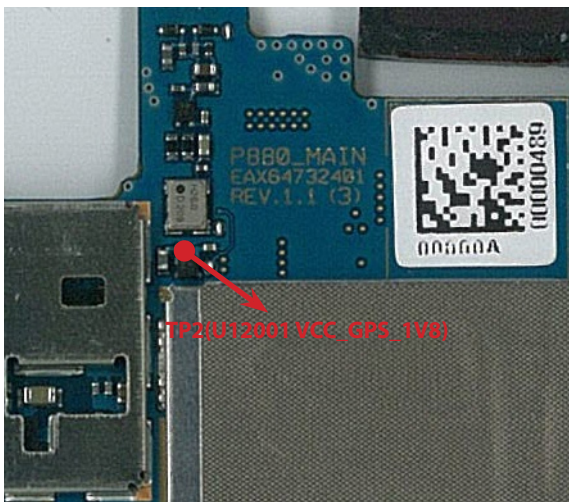


### 4.8.2 Checking GPS LDO

System Setting -> Location Service -> GPS satellites Check -> Enter test mode `*##880##` -> GPS Test ->

Positioning Test -> Setting Key 'Start GPS'

If Setting is right, mobile should display and blink GPS icon



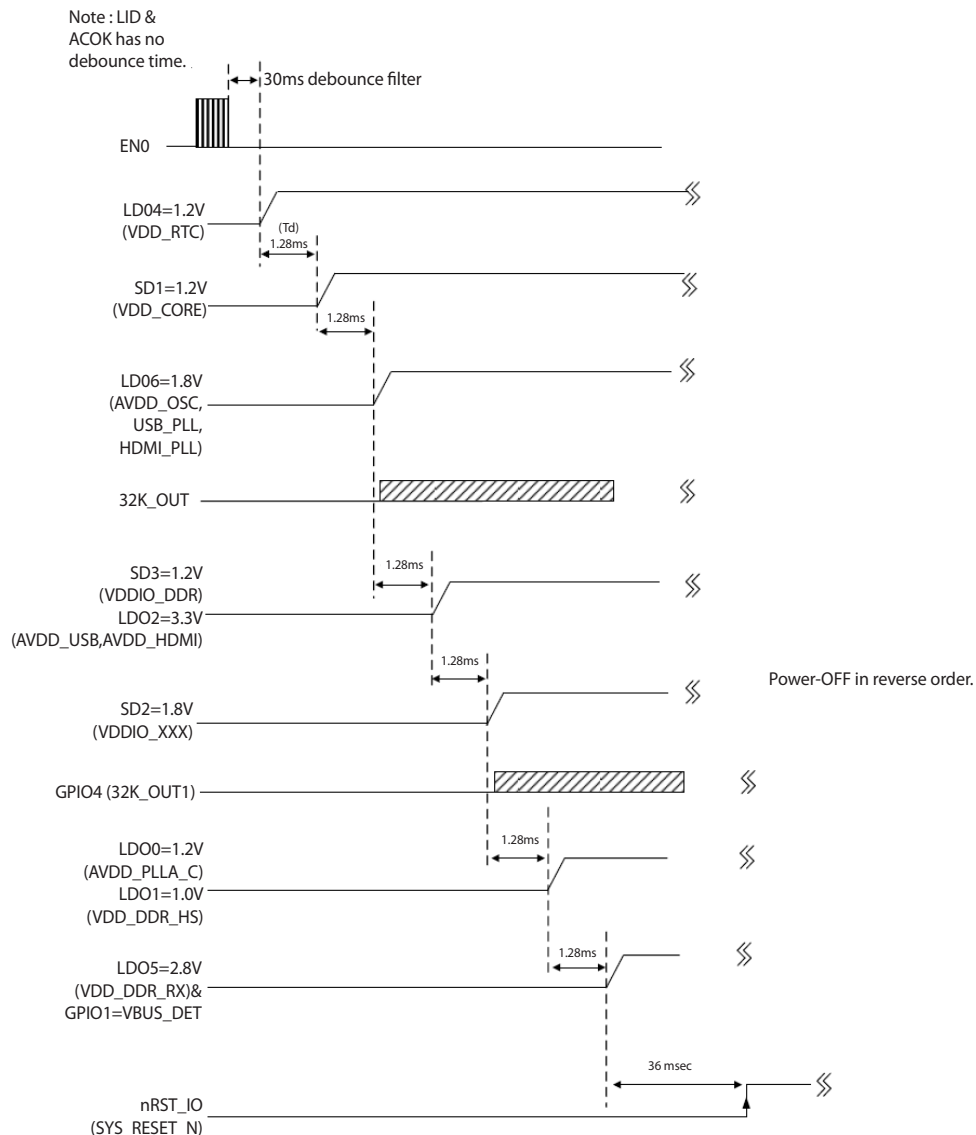


### 4.9 Power ON Troubleshooting

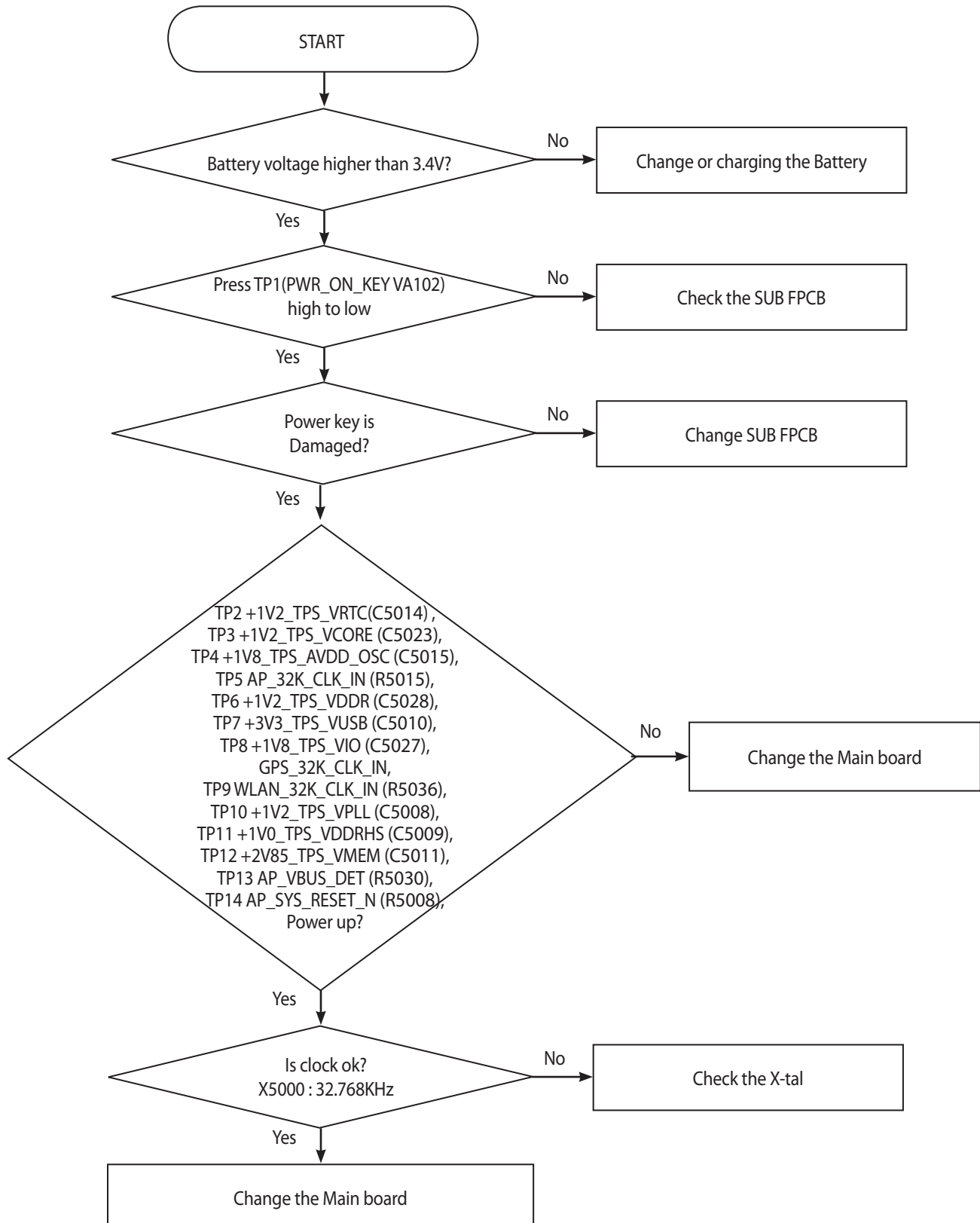
The main power source of LGP880 is provided by MAX77663.

Power ON sequence of LGP880 is,

PWR key press -> PWR\_ON\_KEY go to low (VA102) -> MAX77663 Power Up -> +1V2\_TPS\_VRTC (C5014) -> +1V2\_TPS\_VCORE (C5023) -> +1V8\_TPS\_AVDD\_OSC(C5015) -> AP\_32K\_CLK\_IN(R5015) -> +1V2\_TPS\_VDDR(C5028), +3V3\_TPS\_VUSB(C5010) -> +1V8\_TPS\_VIO(C5027) -> GPS\_32K\_CLK\_IN, WLAN\_32K\_CLK\_IN (R5036) -> +1V2\_TPS\_VPLL(C5008), +1V0\_TPS\_VDDRHS(C5009) -> +2V85\_TPS\_VMEM(C5011), AP\_VBUS\_DET(R5030) -> AP\_SYS\_RESET\_N (R5008) goes to high



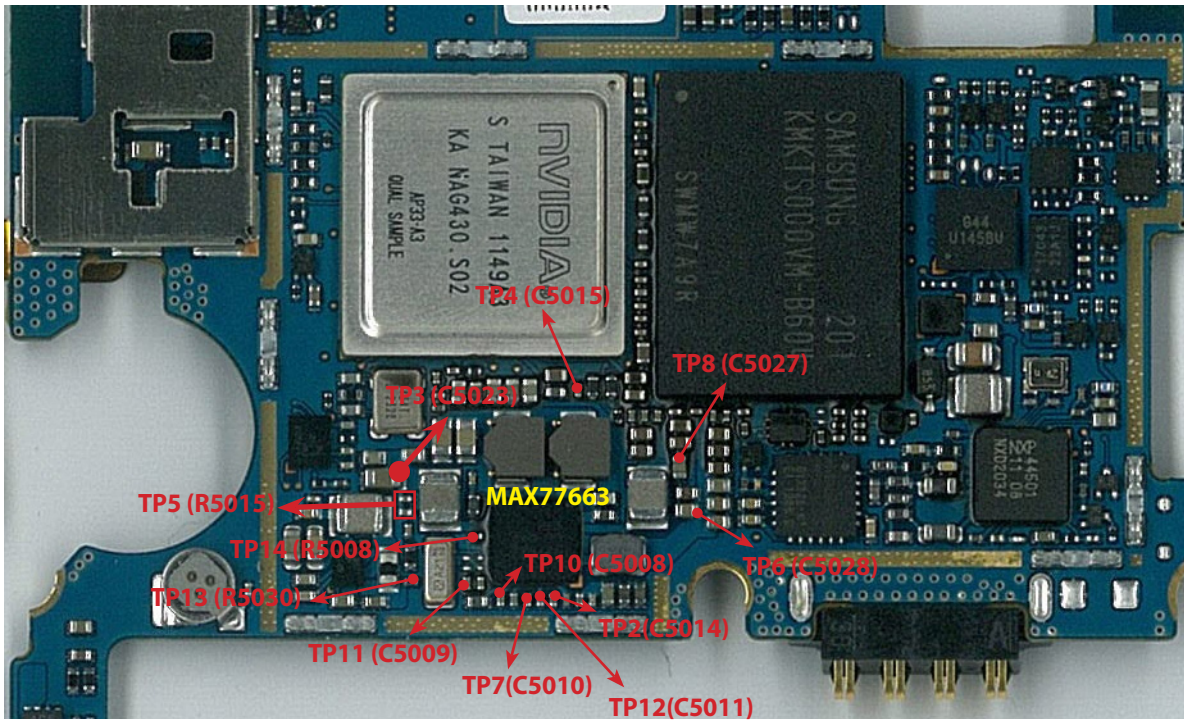
## 4. TROUBLE SHOOTING



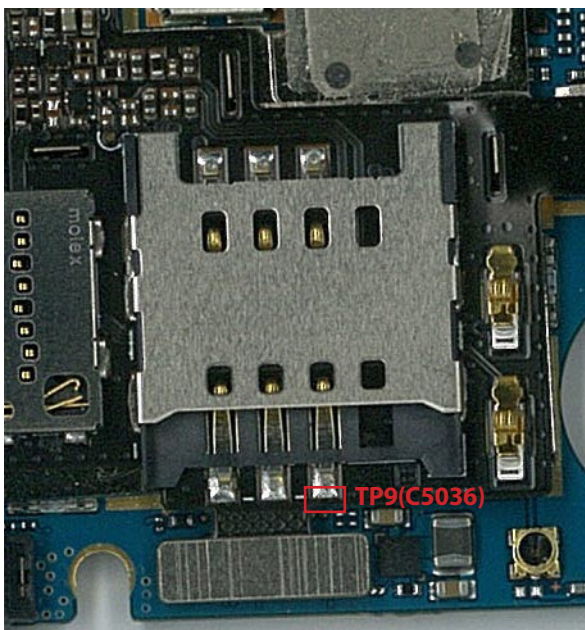


## 4. TROUBLE SHOOTING

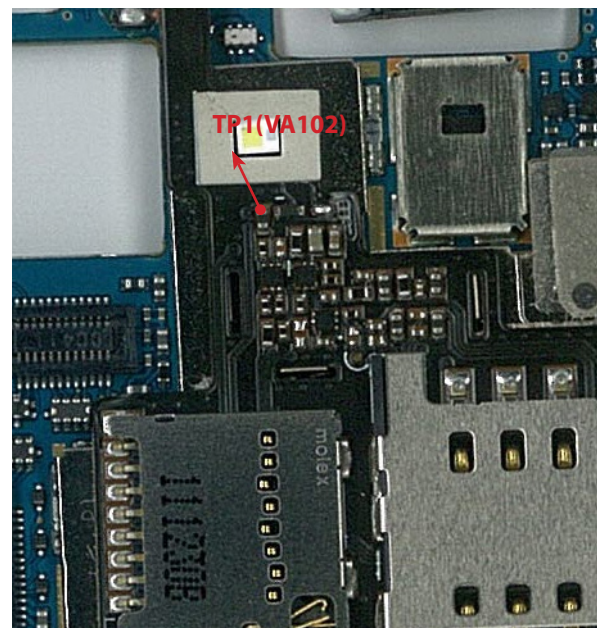
Main PCB Top place



Main PCB Bottom place



SUB FPCB Bottom place



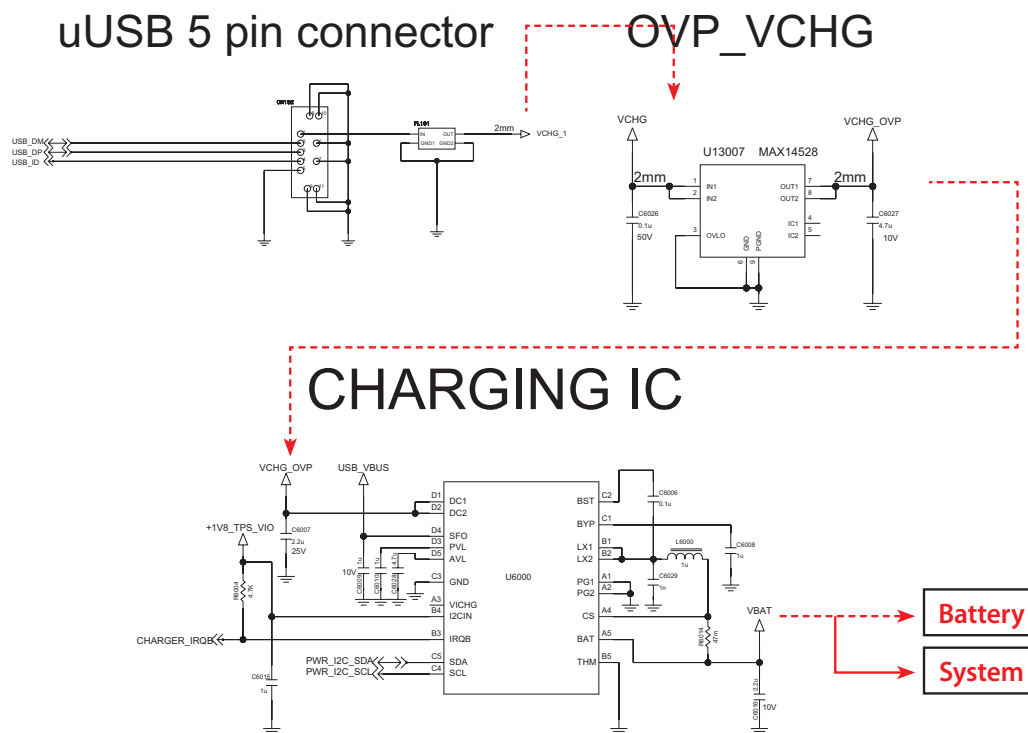
### 4.10 Switching Charger Troubleshooting

#### a. Current flow

- LGP880 Charging scenario is stated from bottom side micro USB connector of LGP880. The charging current flows step by step, USB connector on FPCB to over voltage protection IC (protect up to 28V, Max 14528) to charging IC(MAX 8971).

#### b. Charging current setting

- The charging current is set to max 900mA. The constant current period is set until voltage up to 4.35V. The constant voltage period is ended up to cut-off current of 200mA.



#### c. Charging current flow check point

- Micor USB connector
- Over protection IC
- Charging IC
- Battery

#### d. Charging Procedure

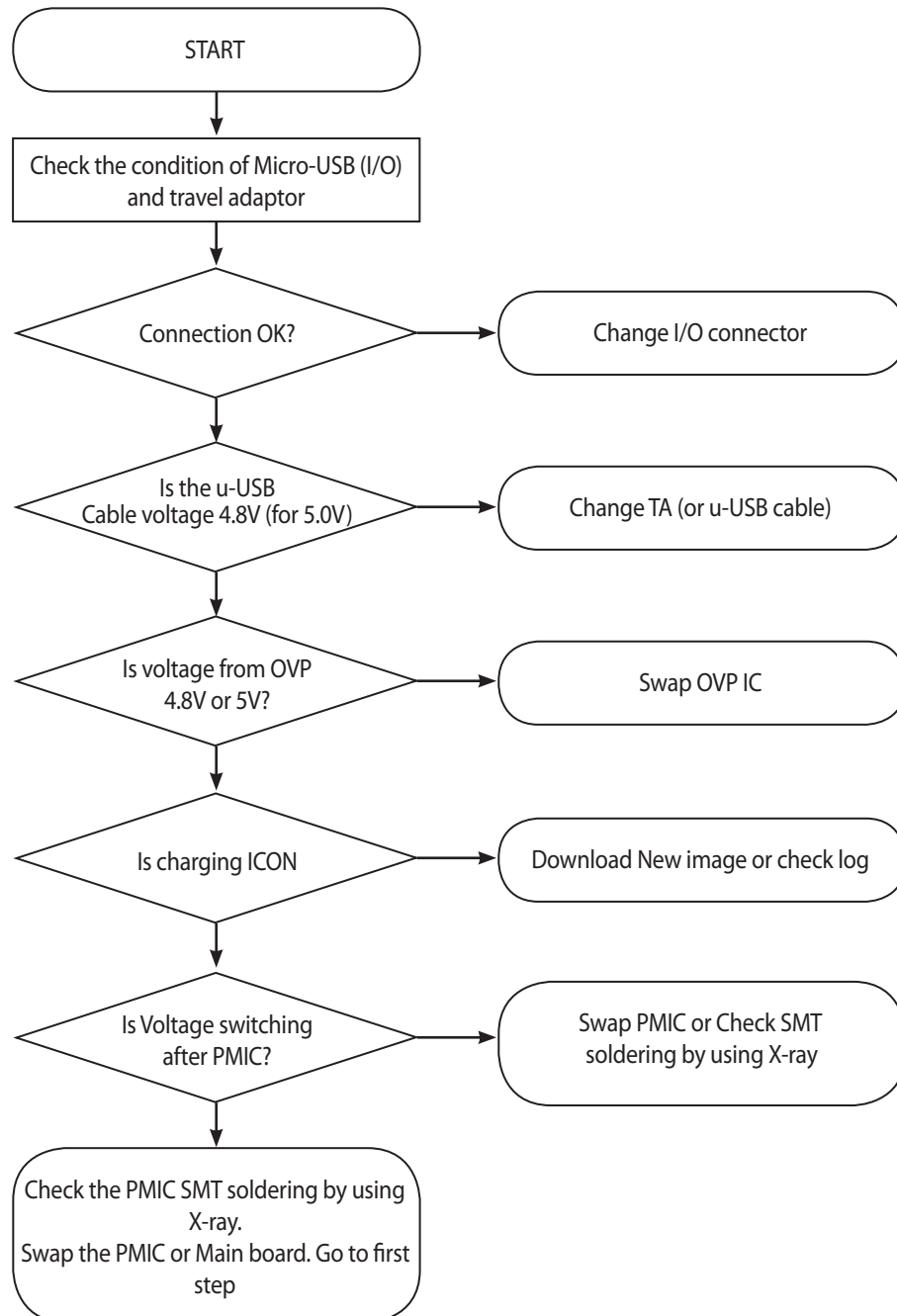
- Connect Travel Adaptor (Charging Cable) to Micro USB connector.
- Current flow to OVP IC to be protected from over voltage
- Current from OVP IC flows to Charging IC meanwhile, MUIC indicate charger insertion
- Current from charging IC flows to system and battery

#### e. Troubleshooting Setup

- Connect TA to P880(with battery)

#### f. Troubleshooting Procedure

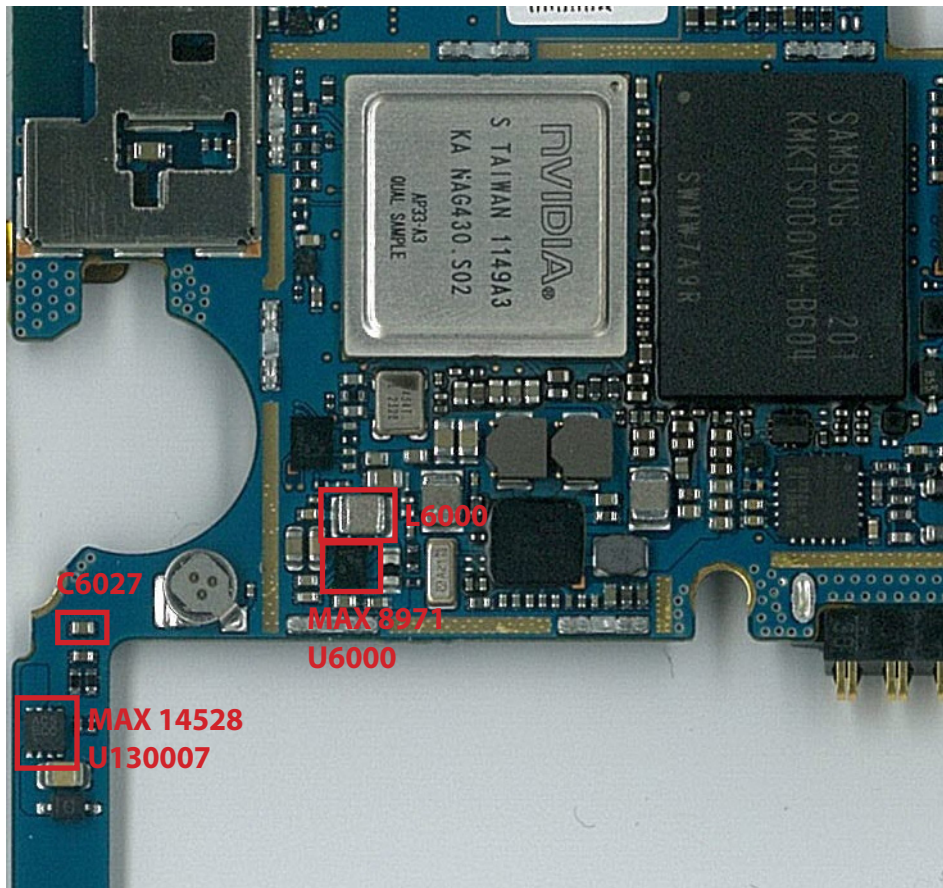
- Check connection between TA(USB cable) and P880



**Charger Troubleshoot Flow**



Bottom of LGP880

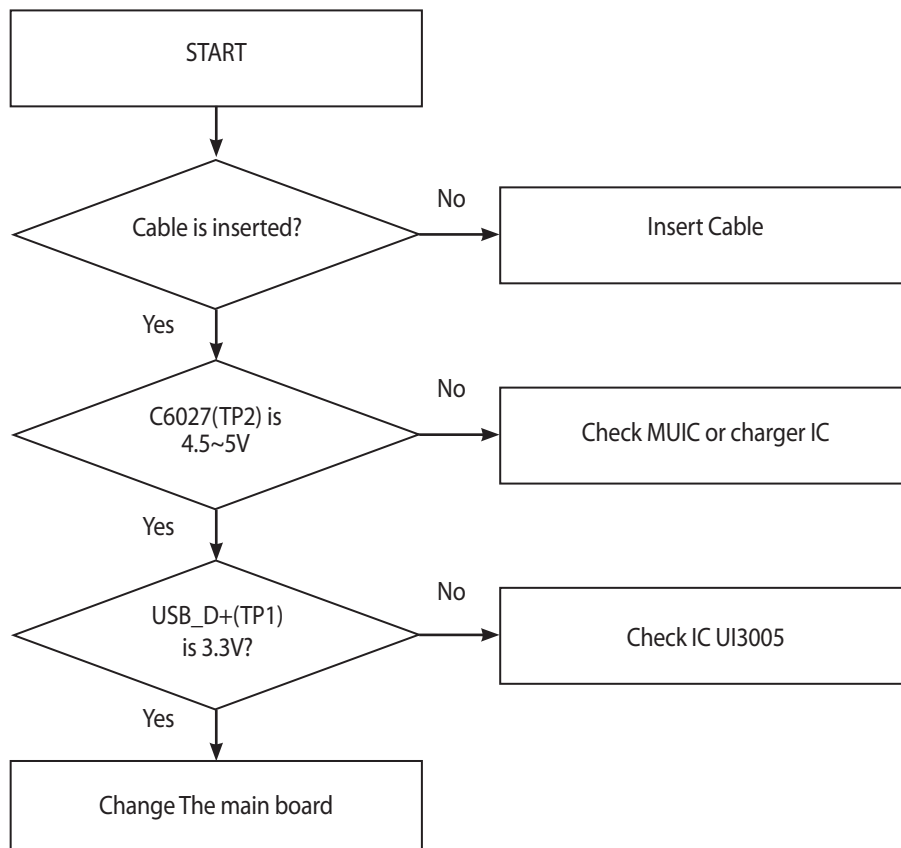
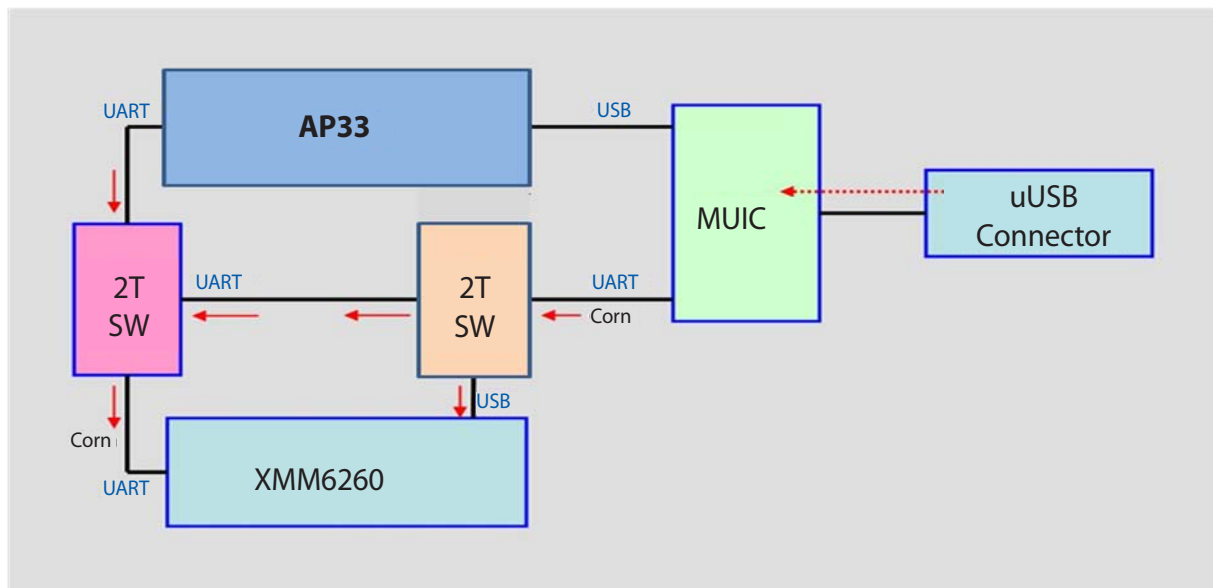


### 4.11 USB Trouble shooting

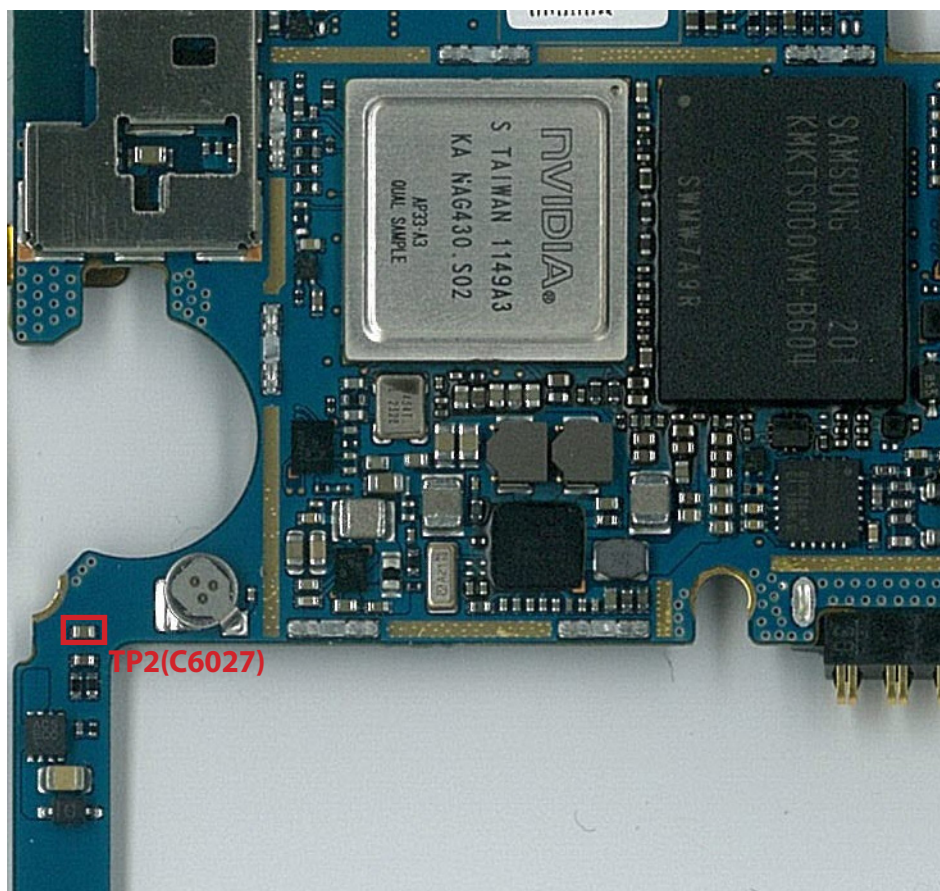
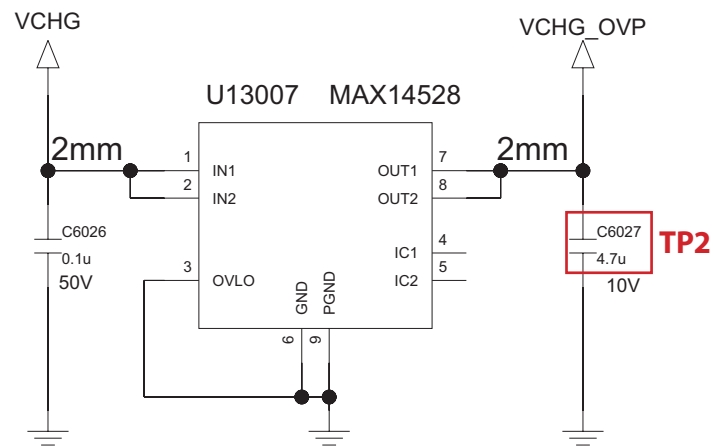
The sequence of LG\_P880 USB is,

USB connected to LG\_P880->USB\_VBUS(C6027) goes to 4.5V~5V -> USB\_D+ go to 3.3V -> USB work

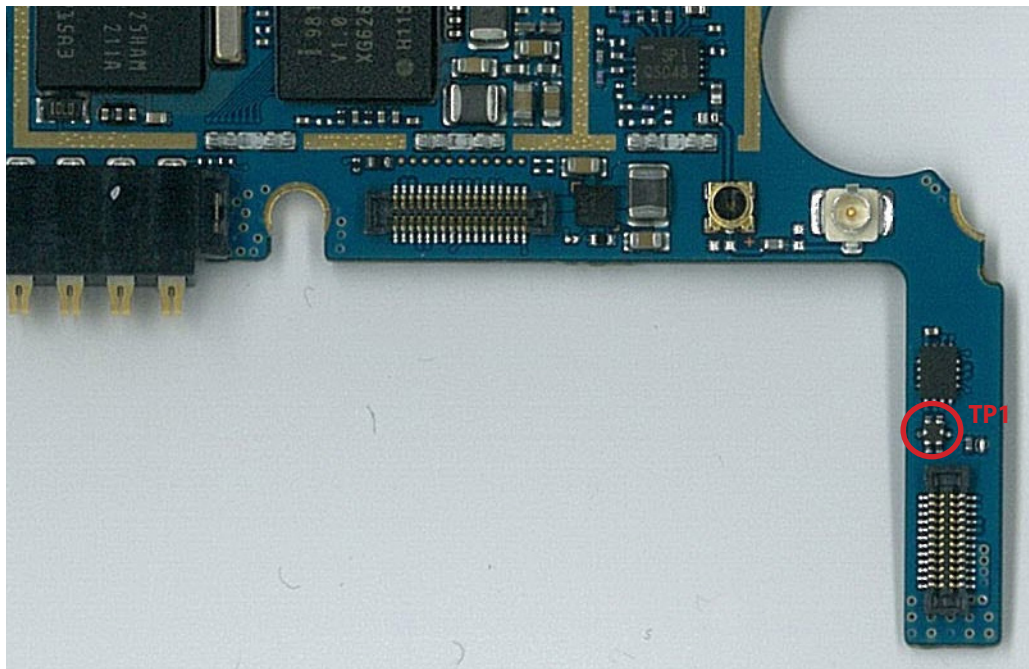
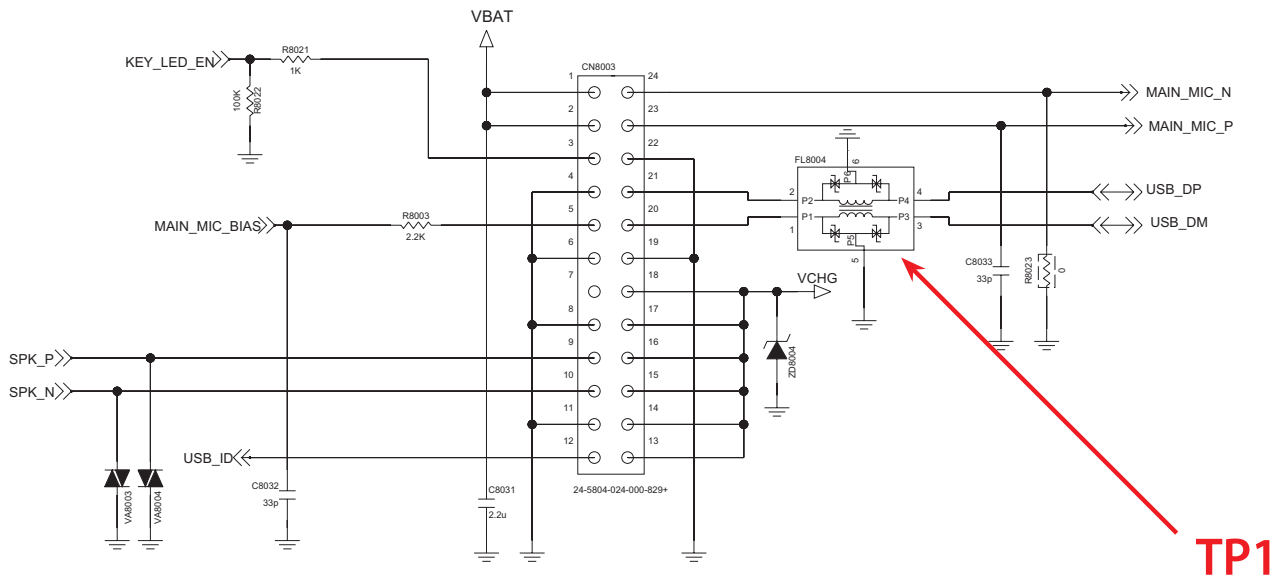
Block Diagram of USB & UART connection is shown below.



## 4. TROUBLE SHOOTING



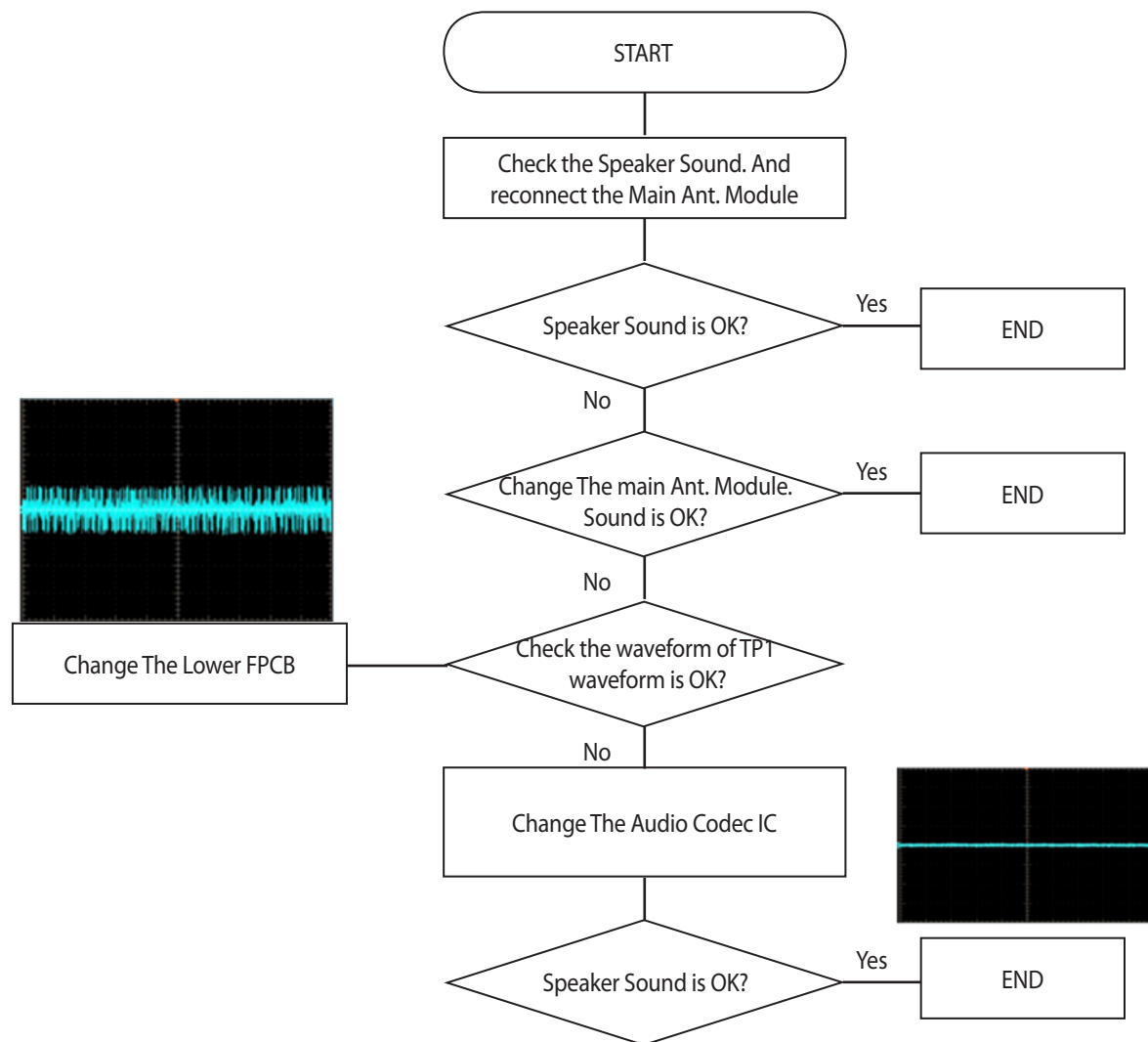
## 4. TROUBLE SHOOTING



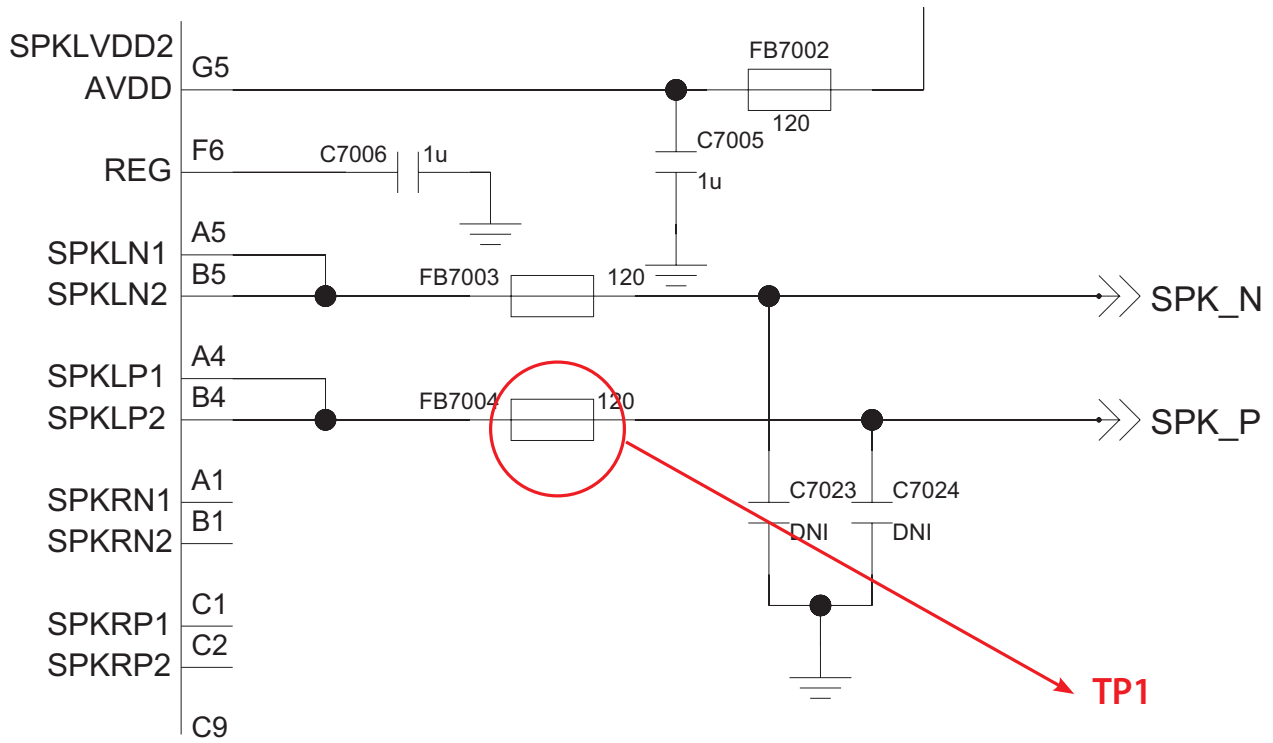
### 4.12 Audio troubleshooting

#### 4.12.1 Speaker troubleshooting

Speaker control signals are generated by AP33 (U3000), amplified by MAX98089 (U7000), and Power is supplied by Battery (VBAT).

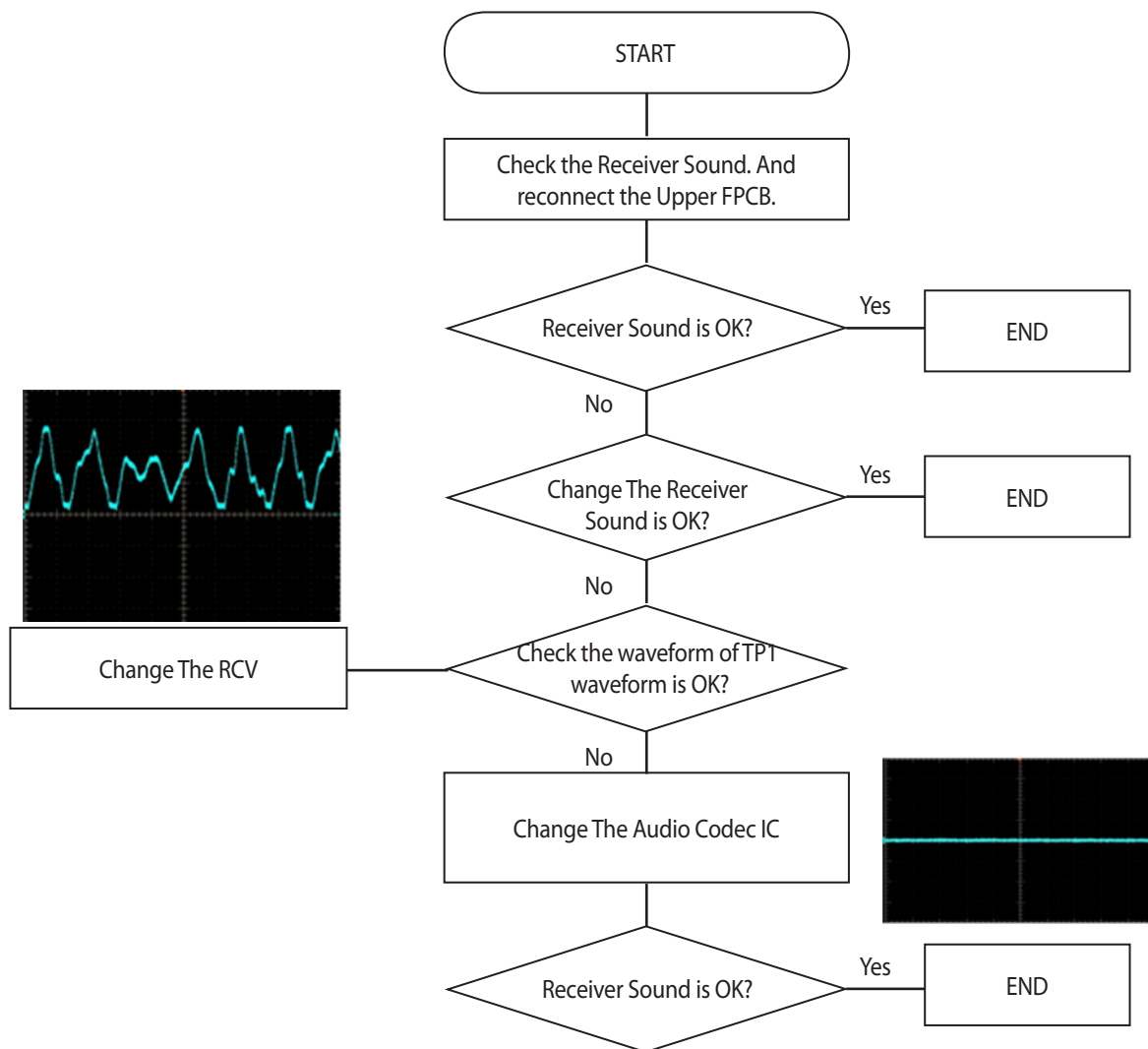






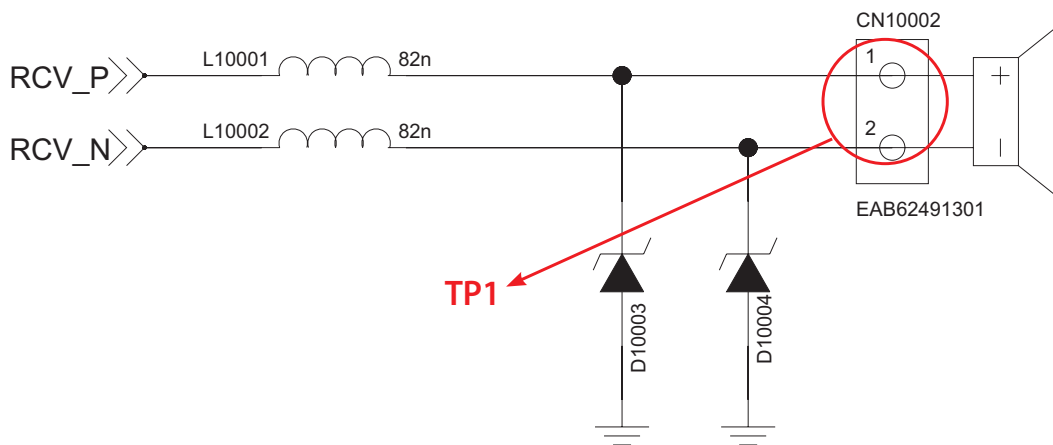
### 4.12.2 Receiver troubleshooting

Receiver control signals are generated by MAX98089(U7000), and Power is supplied by Battery (VBAT).



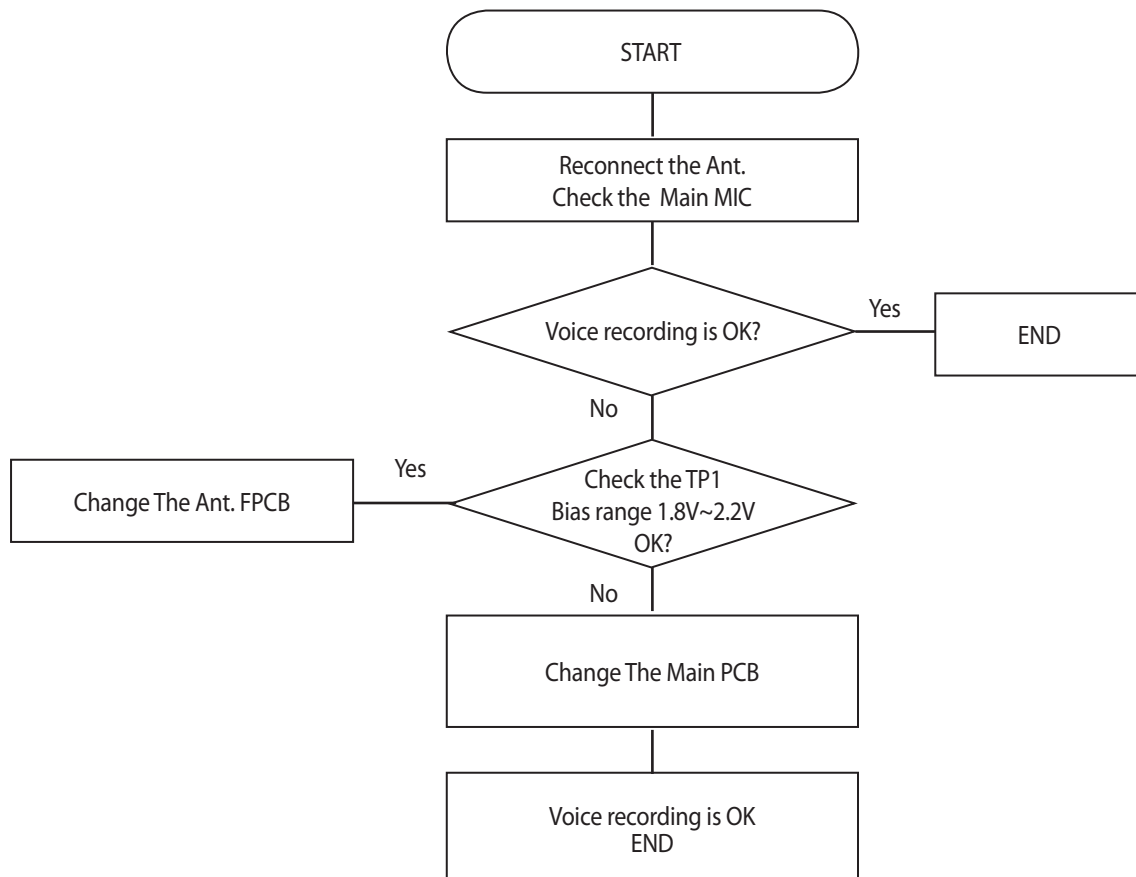
# RECEIVER

30mW 32OHM 104DB 300HZTO3.5KHZ WIRE

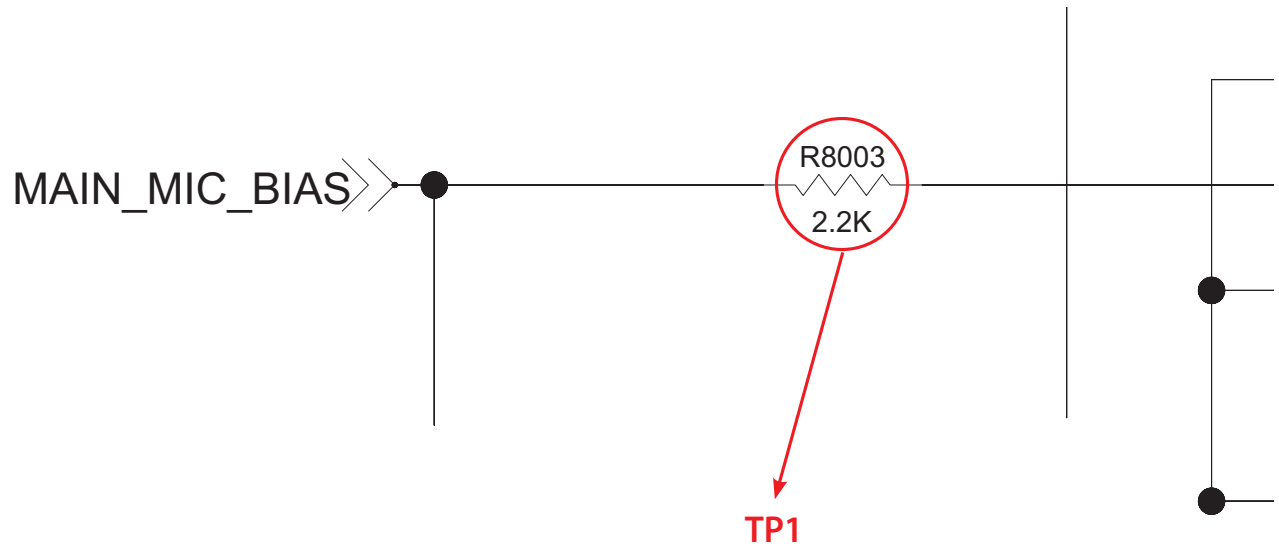


### 4.12. 3 Main MIC troubleshooting

Main MIC control signals are generated by MAX98089(U7000), and Power is supplied by Battery (VBAT).

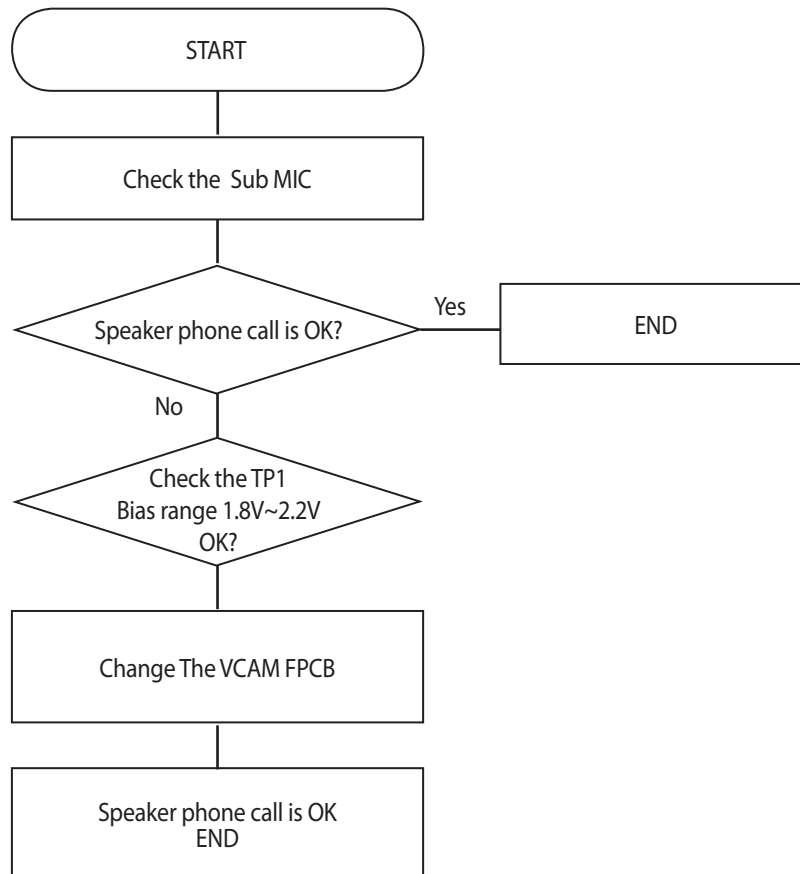


## 4. TROUBLE SHOOTING



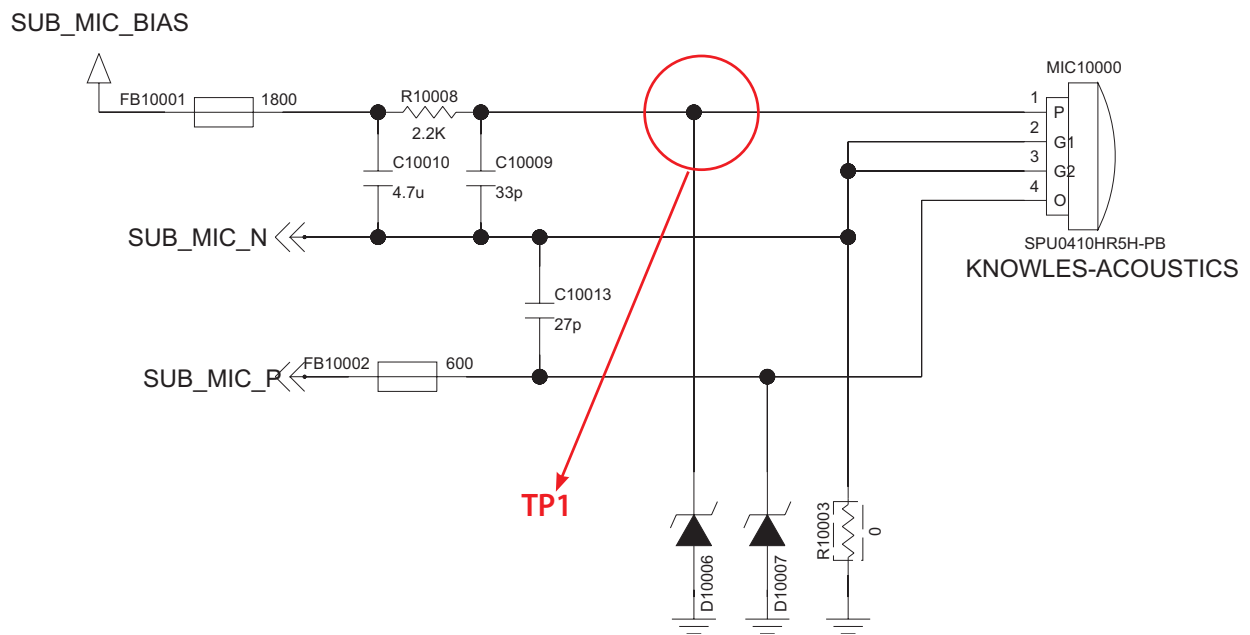
### 4.12. 4 SUB MIC troubleshooting

Sub MIC control signals are generated by LDO(U10001), and Power is supplied by Battery (VBAT).



# SUB MIC

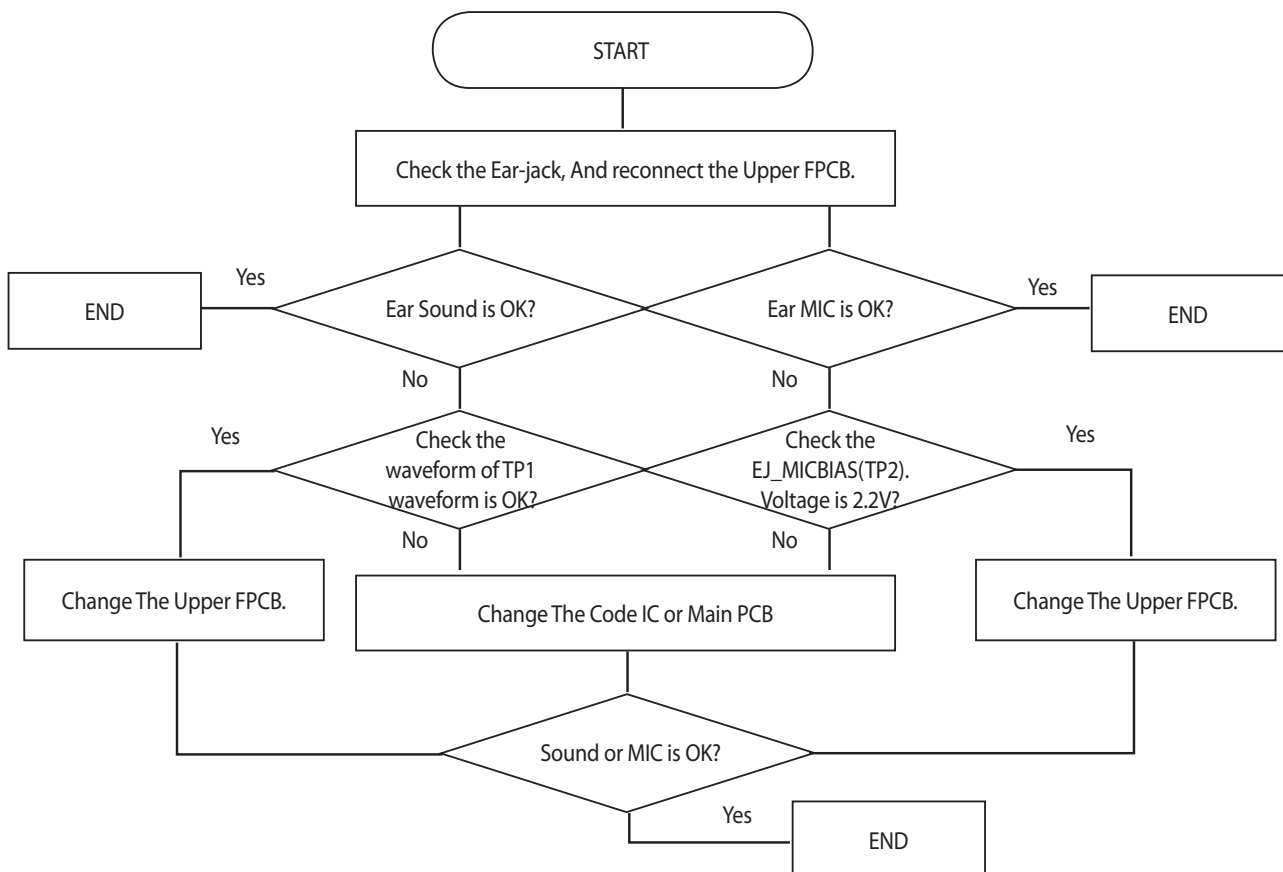
## TOP



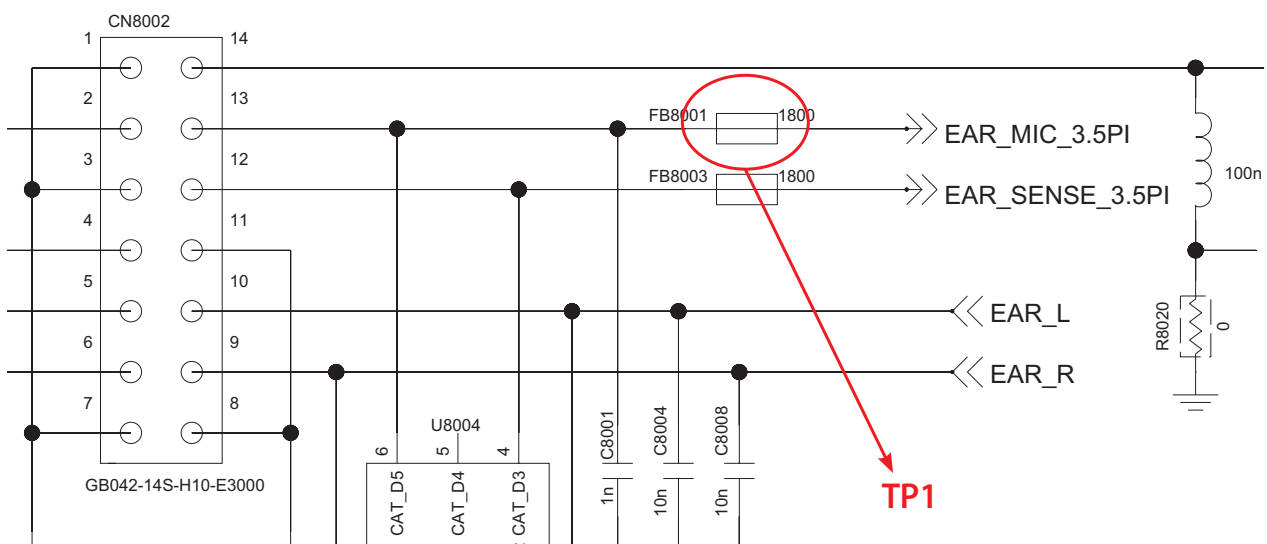
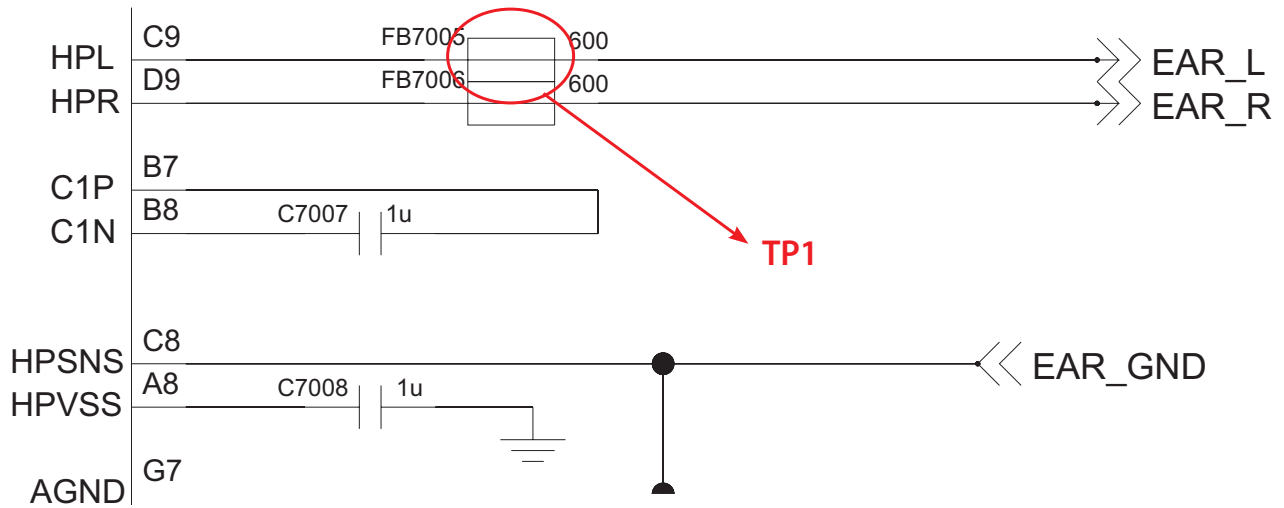


### 4.12. 5 Ear-MIC troubleshooting

Ear MIC control signals are generated by MAX98089(U7000), and Power is supplied by Battery (VBAT).



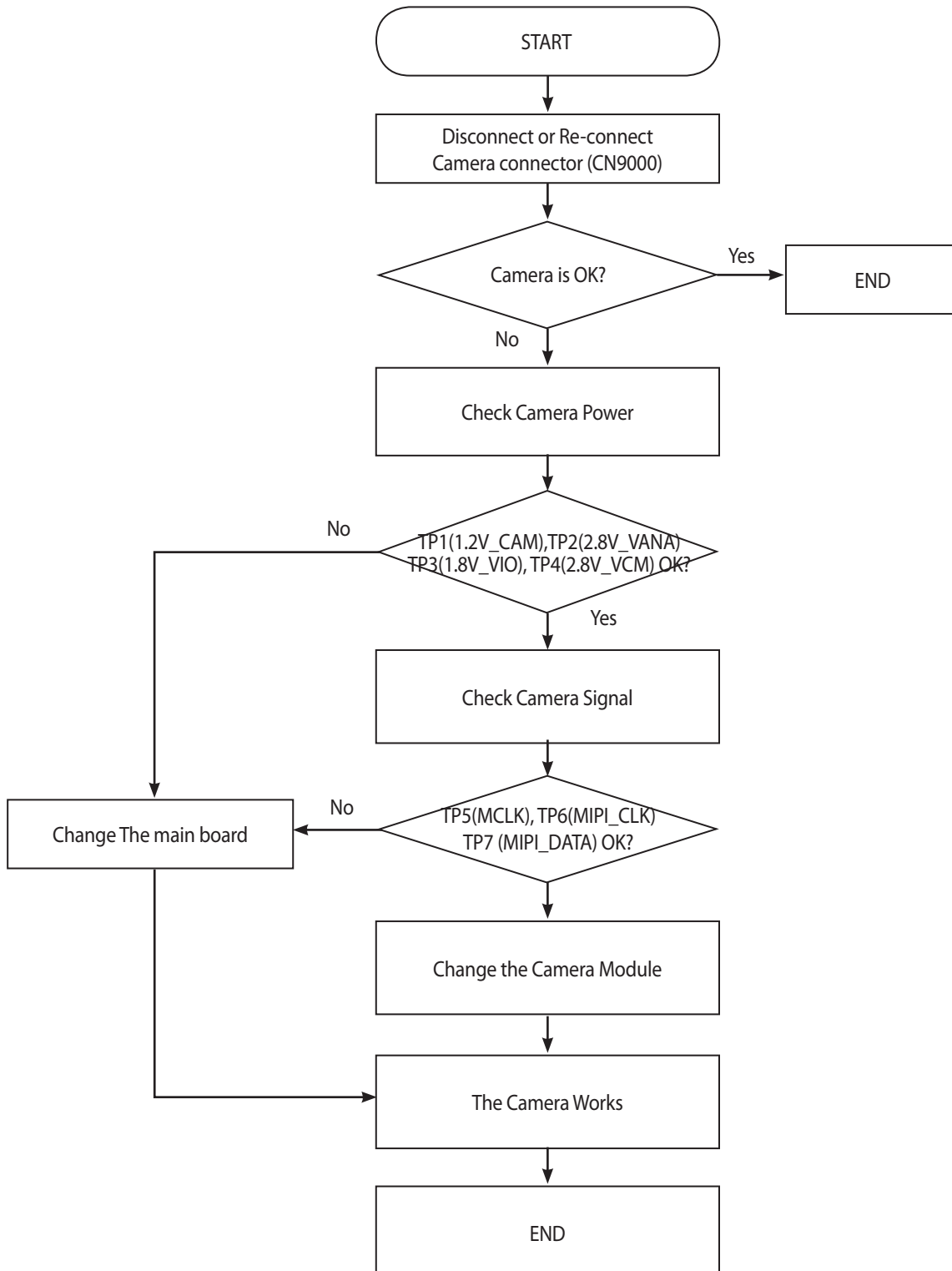
## 4. TROUBLE SHOOTING



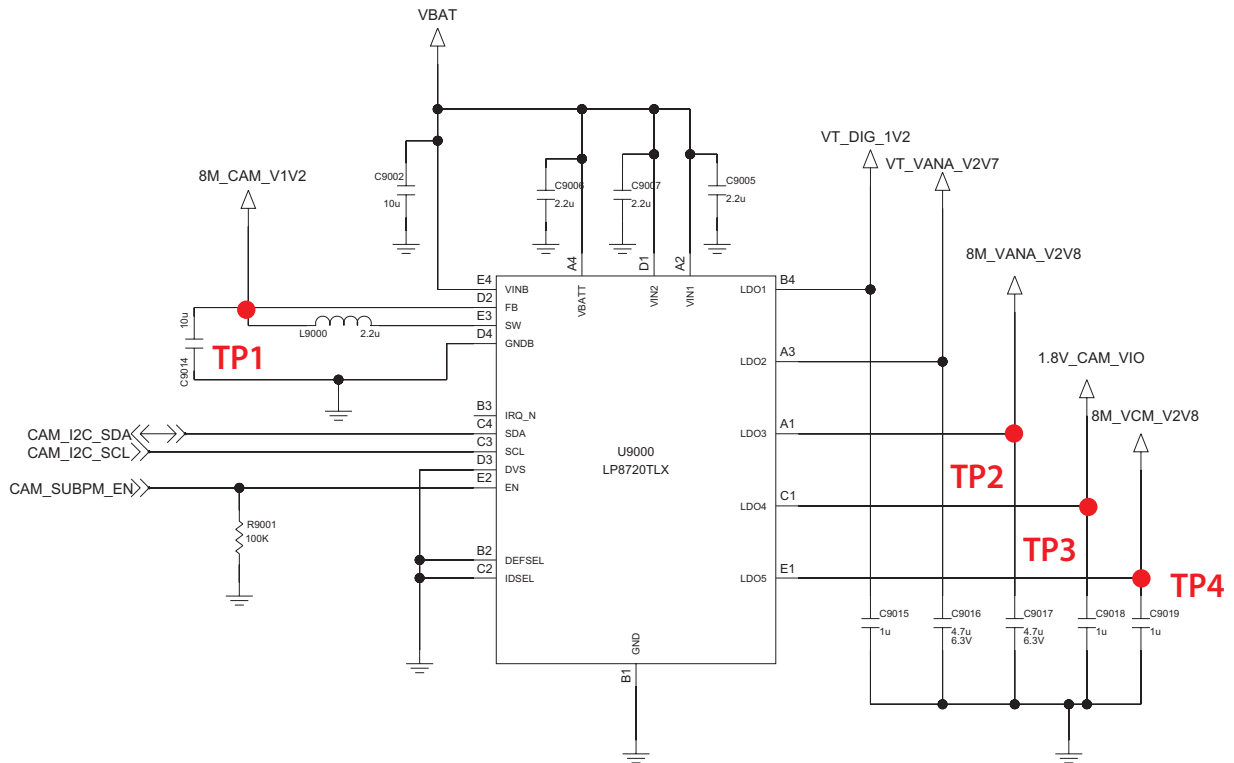
### 4.13 (8M) Camera troubleshooting

#### 4.13.1 Main 8M AF Camera troubleshooting

8M camera control signals are generated by AP33(U3000), and Power is supplied by LP8720(U9000)

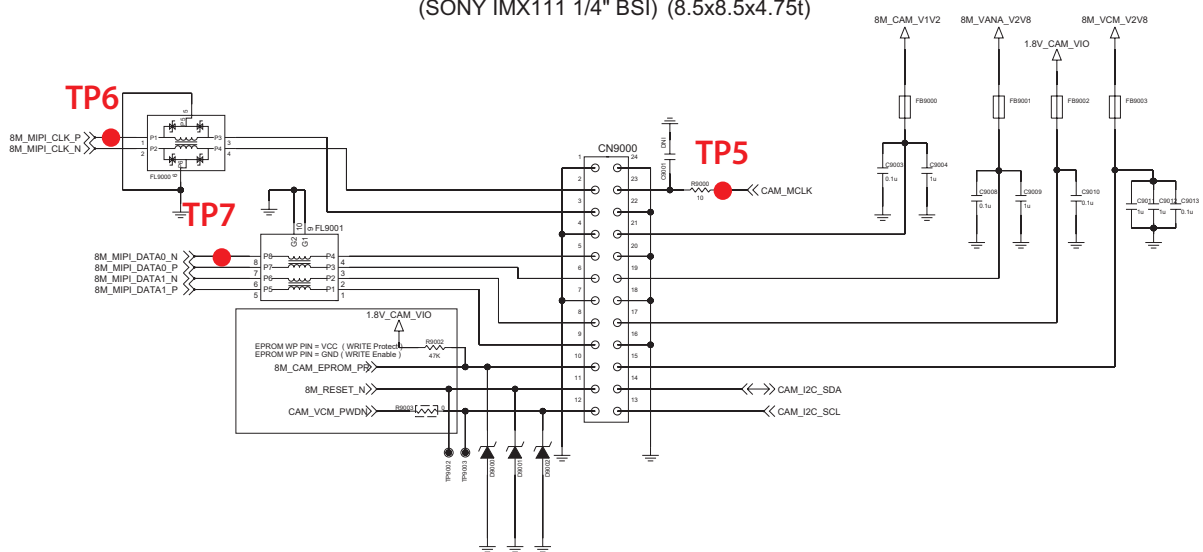


## 4. TROUBLE SHOOTING

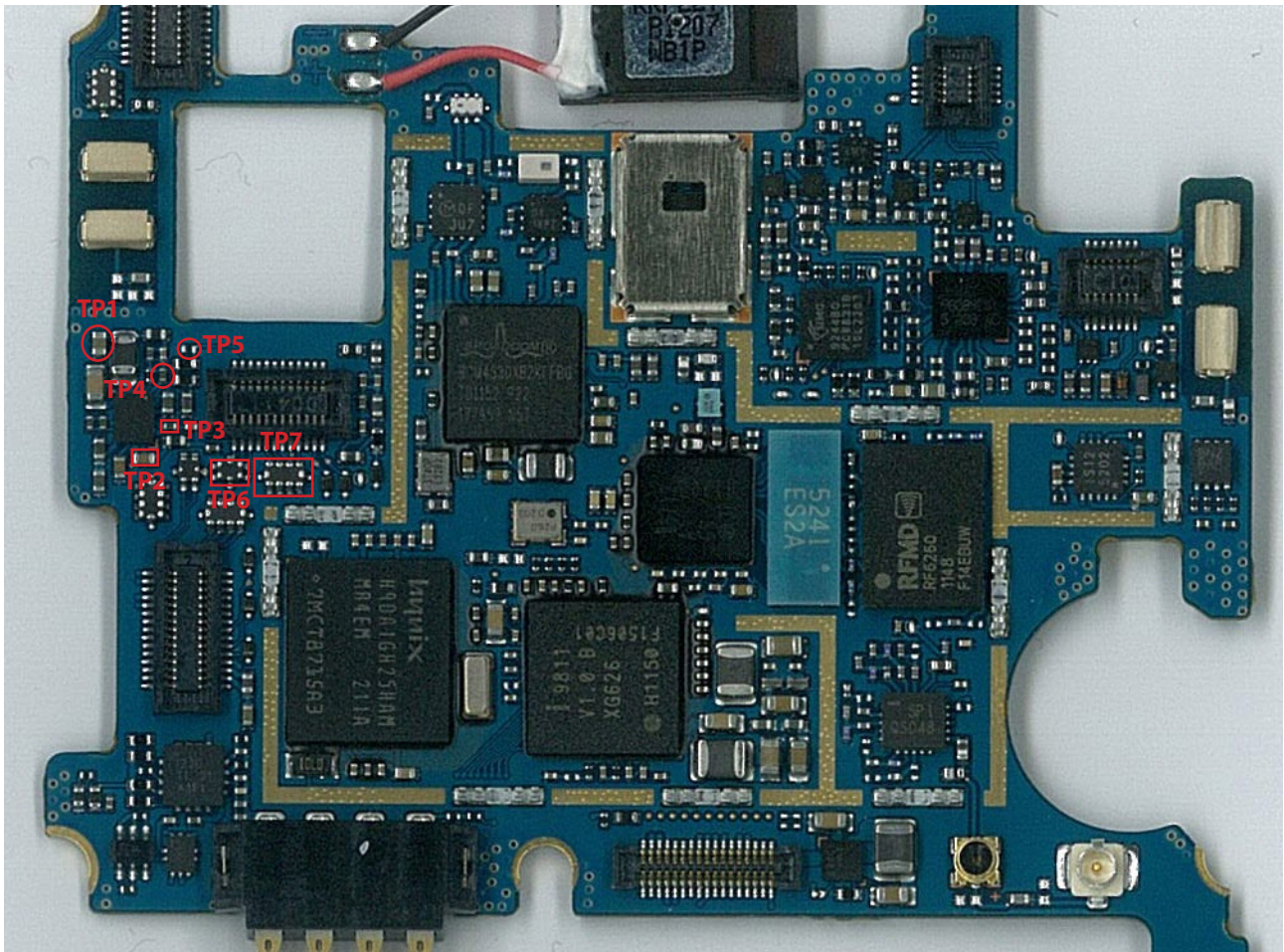


## 8MP\_MIPI\_CAMERA

(SONY IMX111 1/4" BSI) (8.5x8.5x4.75t)



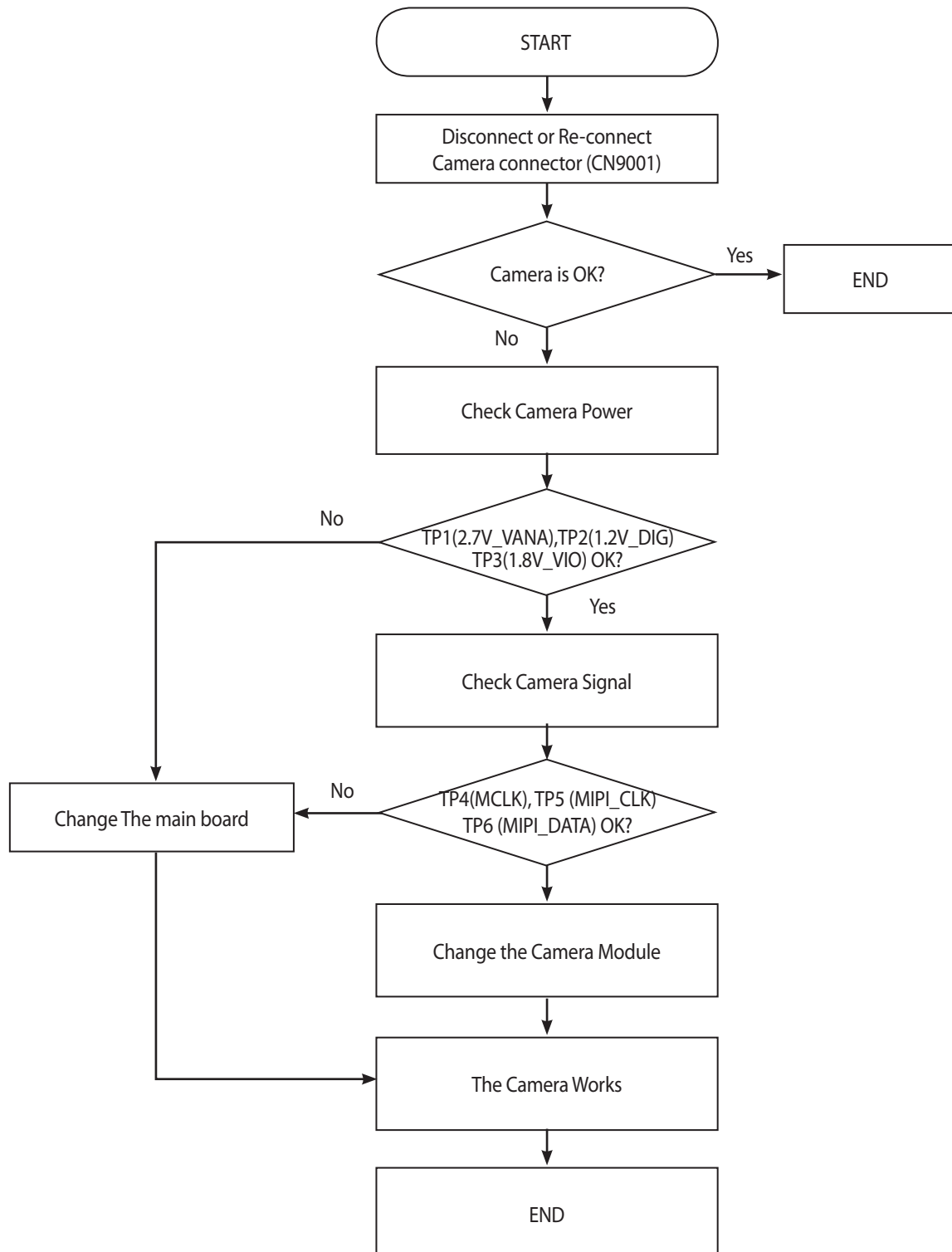
## 4. TROUBLE SHOOTING



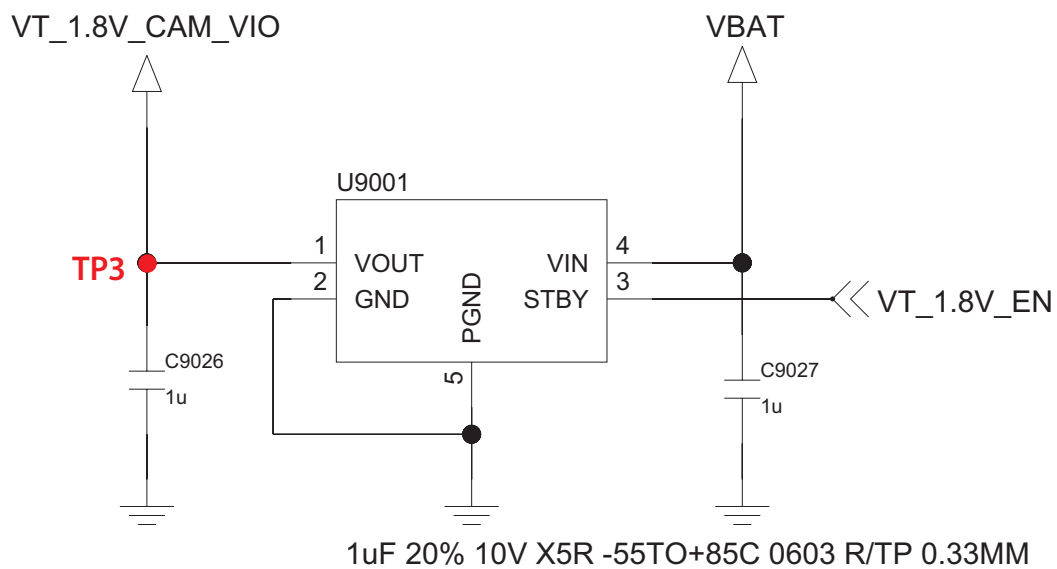
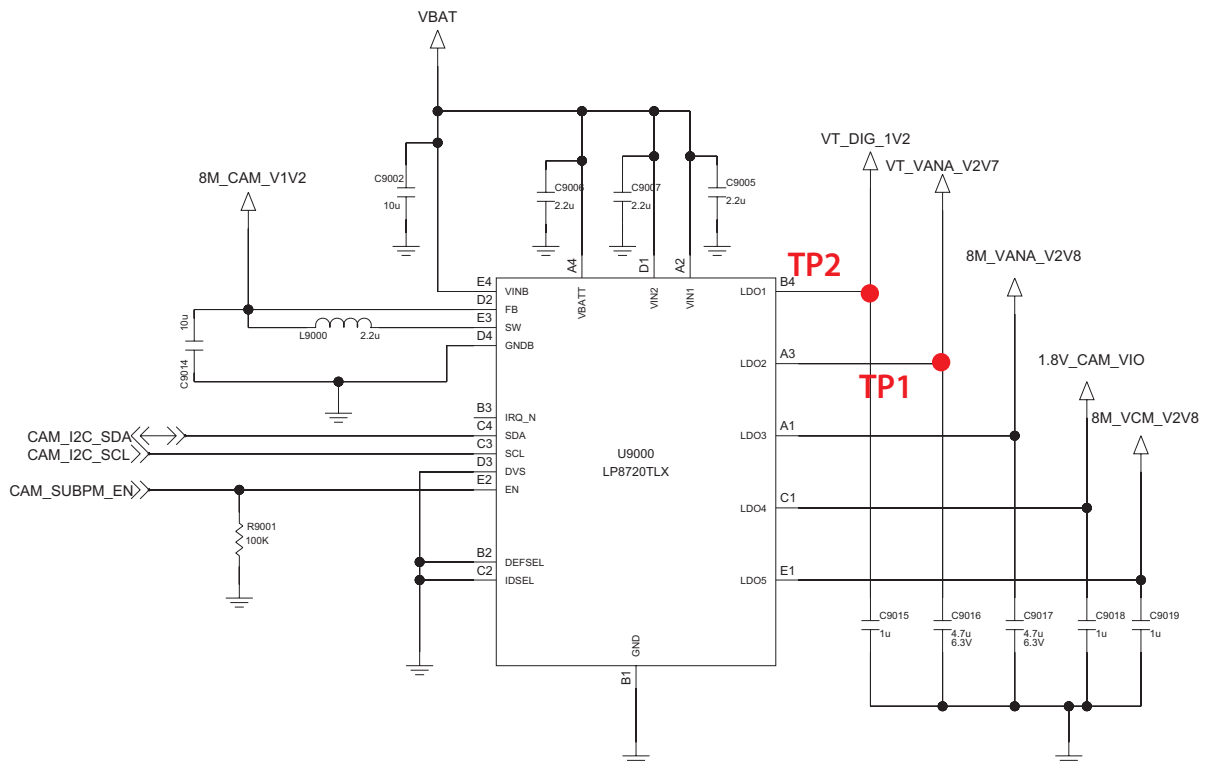
### 4.14.(1.26M) Camera troubleshooting

#### 4.14.1 (1.26M) VT Camera troubleshooting

VT camera control signals are generated by AP33(U3000), and Power is supplied by LP8720(U9000)

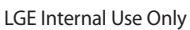
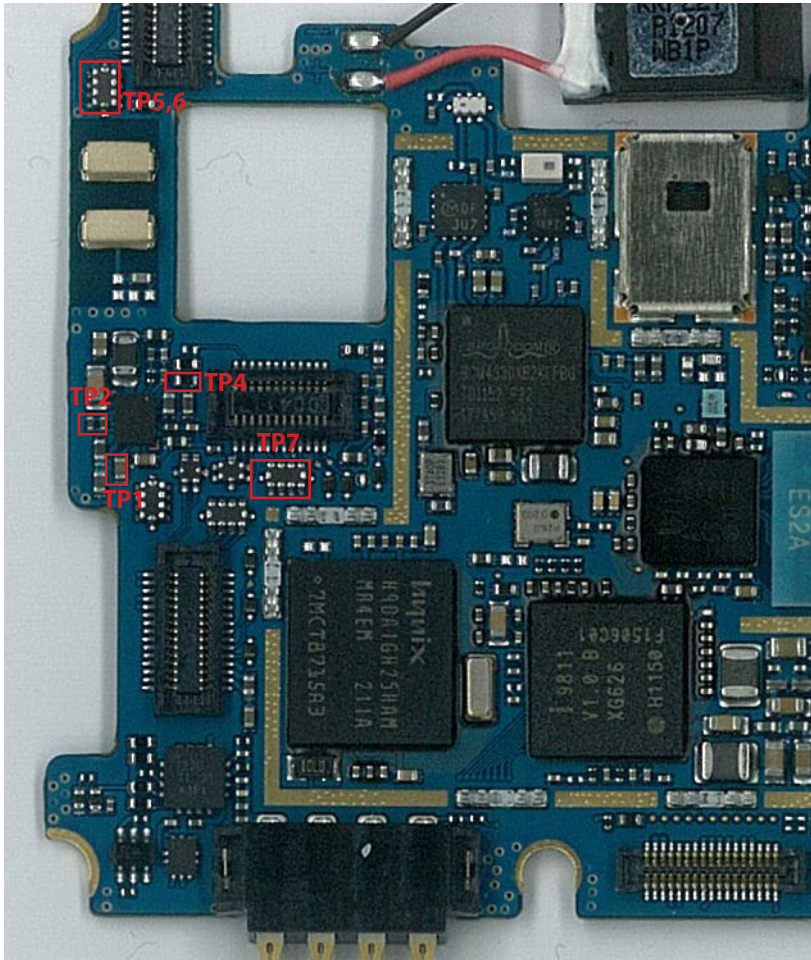


## 4. TROUBLE SHOOTING





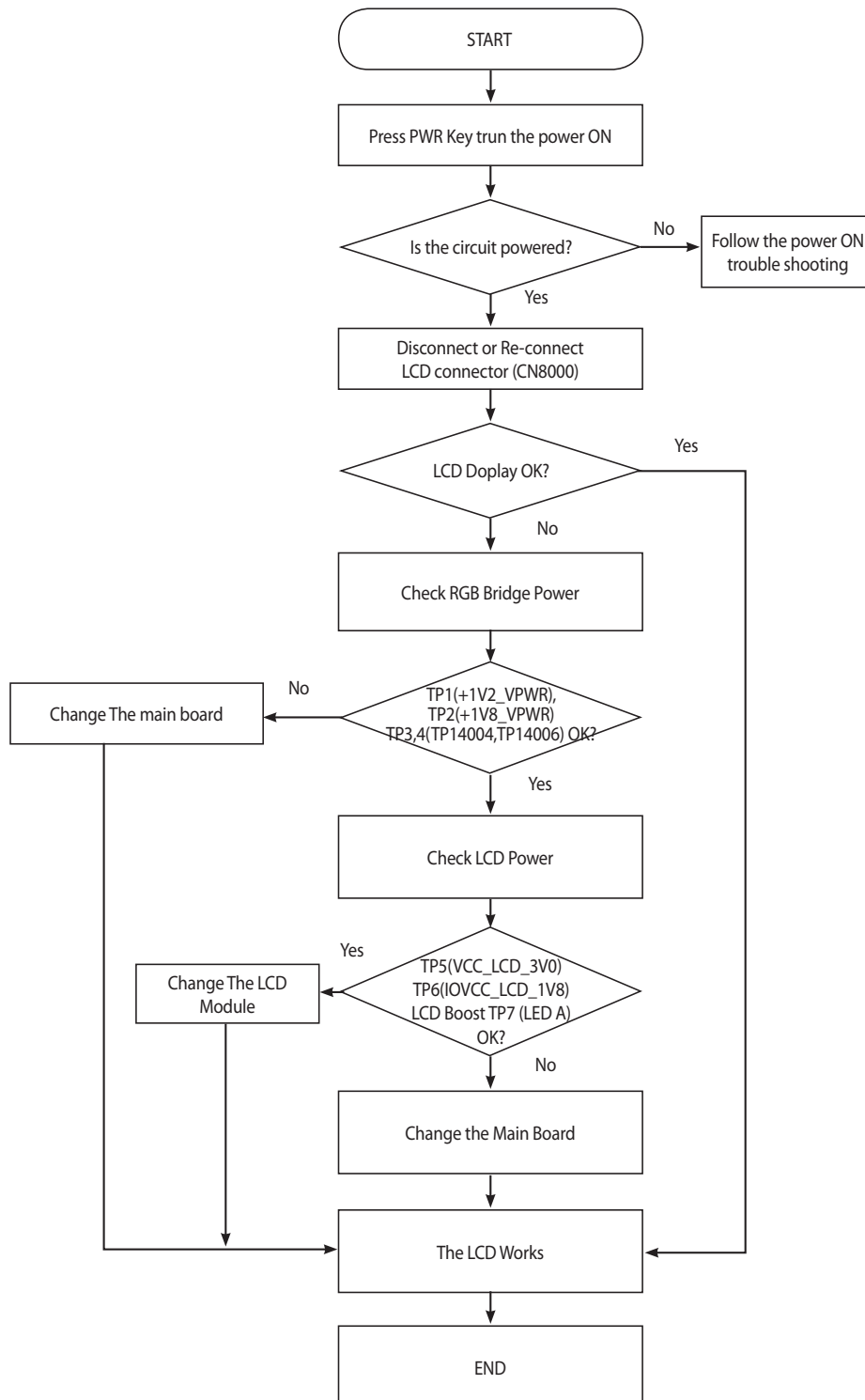
(SONY IMX119 1/7.8") (5.0x5.0x3.0t)



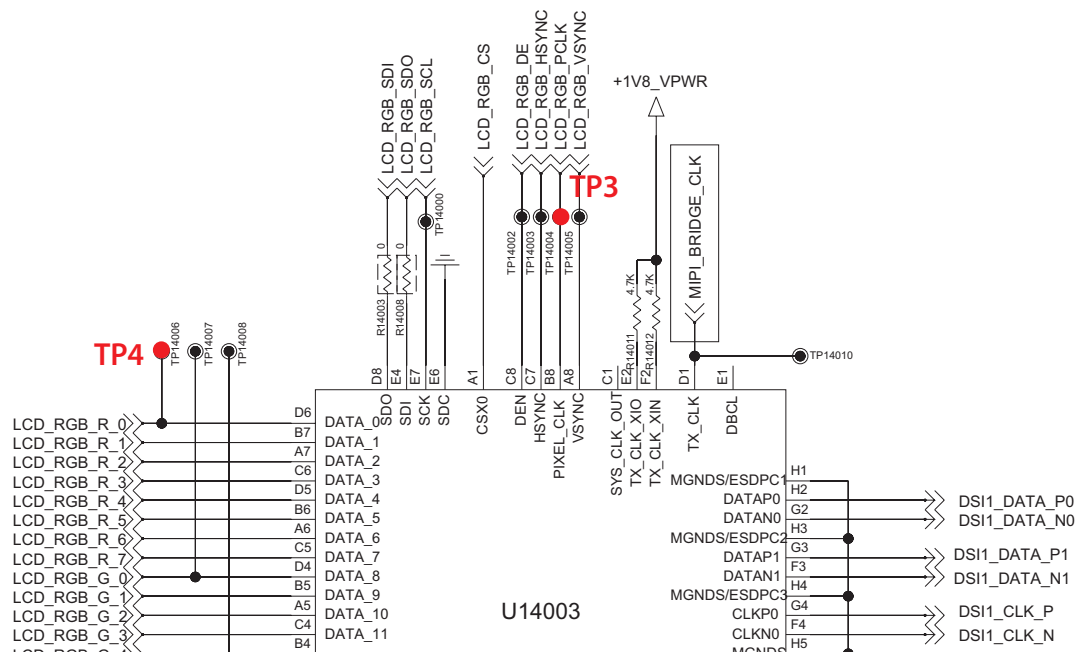
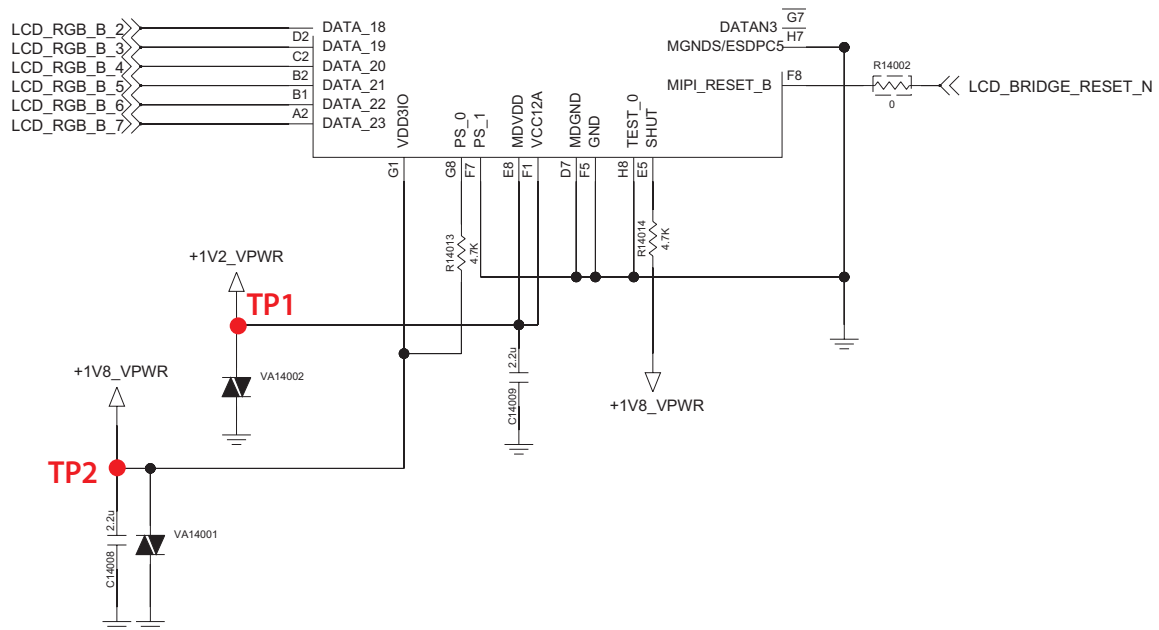
### 4.15 Main LCD trouble

Main LCD control signals are generated by AP33 & SSD2825. Those signal's path are :

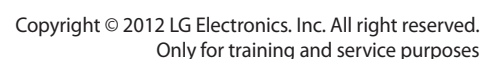
AP33 -> SSD2825 -> LCD Module



## 4. TROUBLE SHOOTING

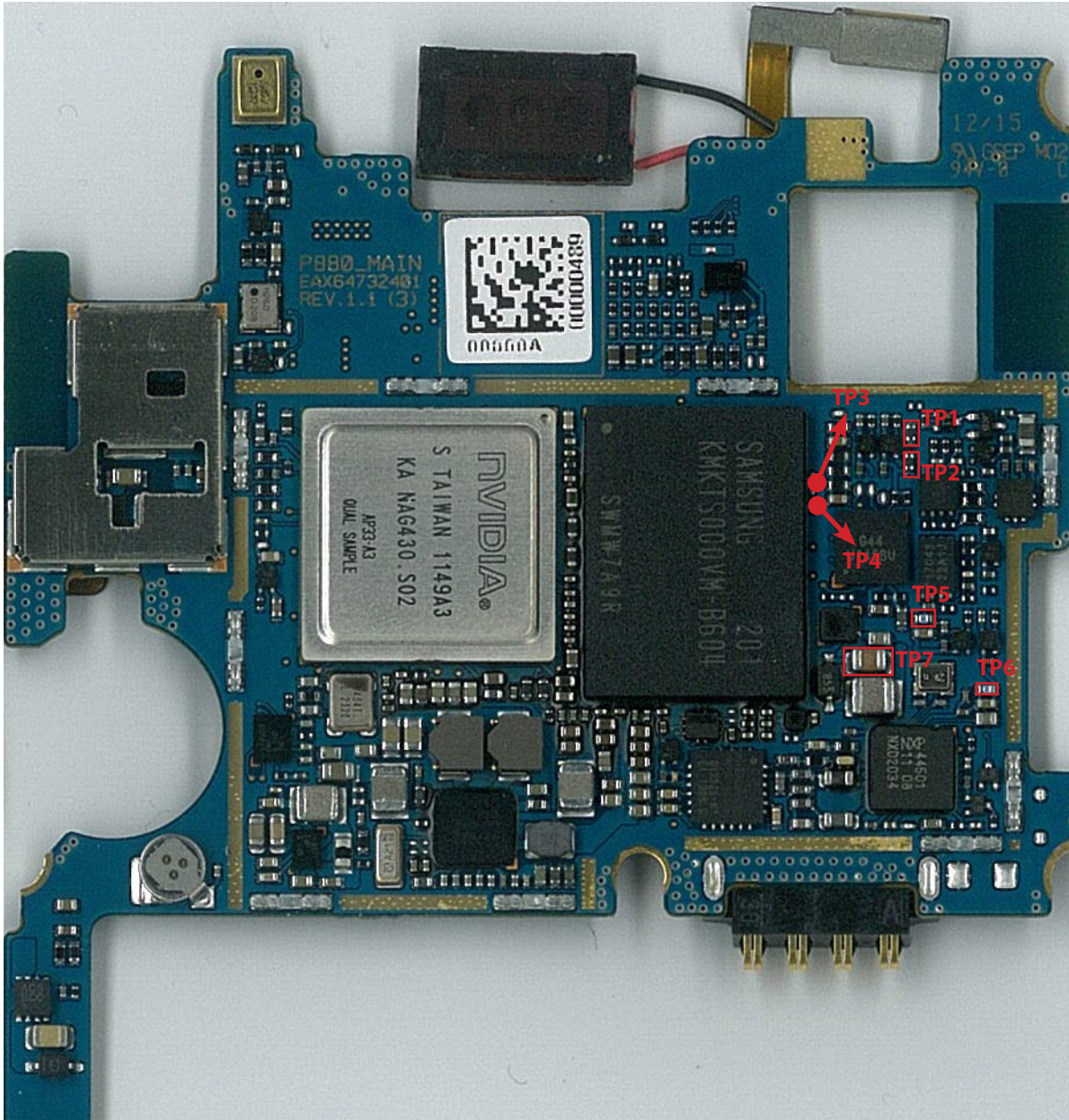


LCD MAKER ID : Hitachi (LOW)





## 4. TROUBLE SHOOTING

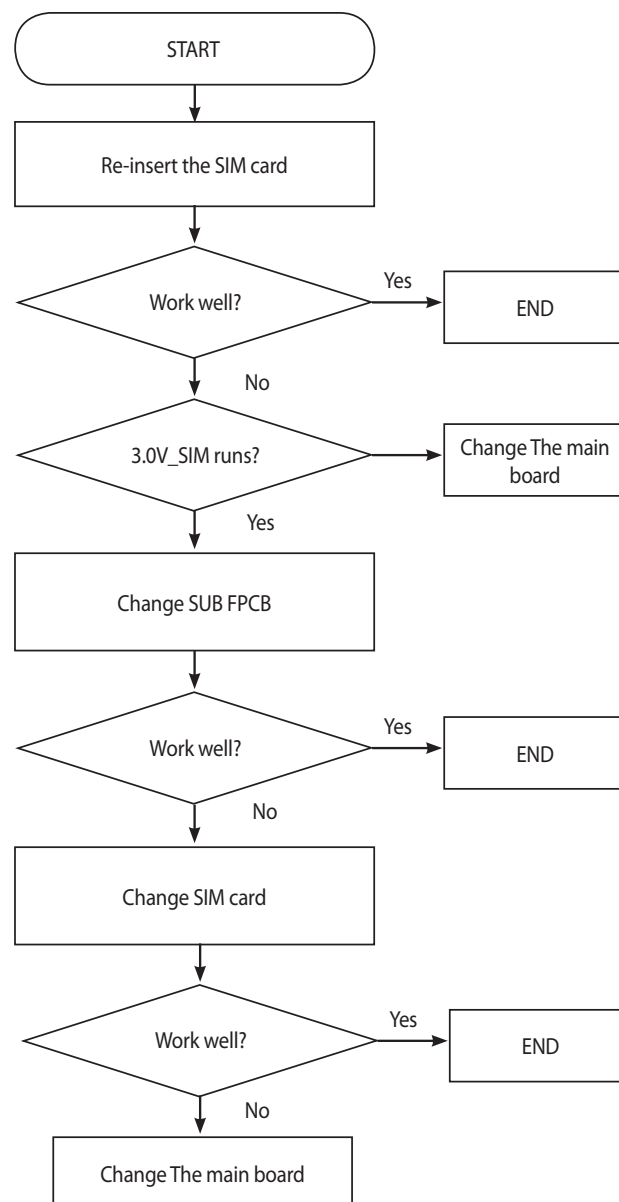
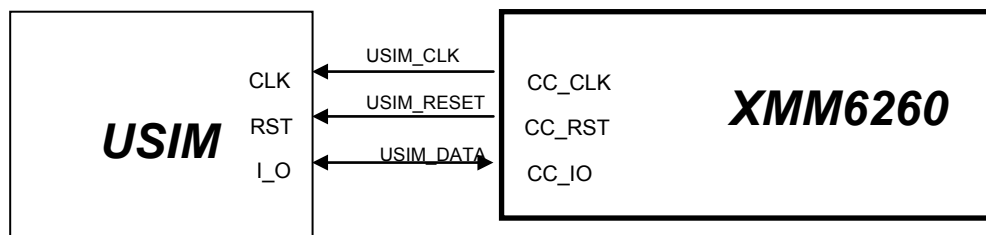


### 4.16 SIM detect Trouble shooting

The sequence of detecting LGP880 SIM is,

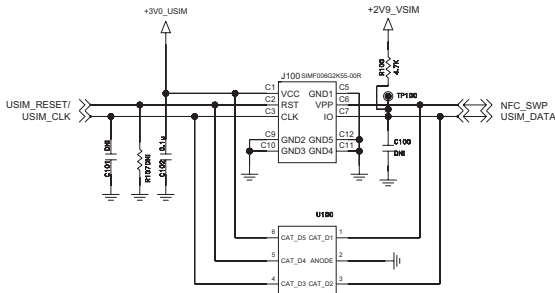
SIM inserted to LGP880 -> 3.0V\_USIM goes to 3.0V(SUB FPCB) -> Triggers SIM clock, reset and data.

Block Diagram of USB & UART connection is shown below

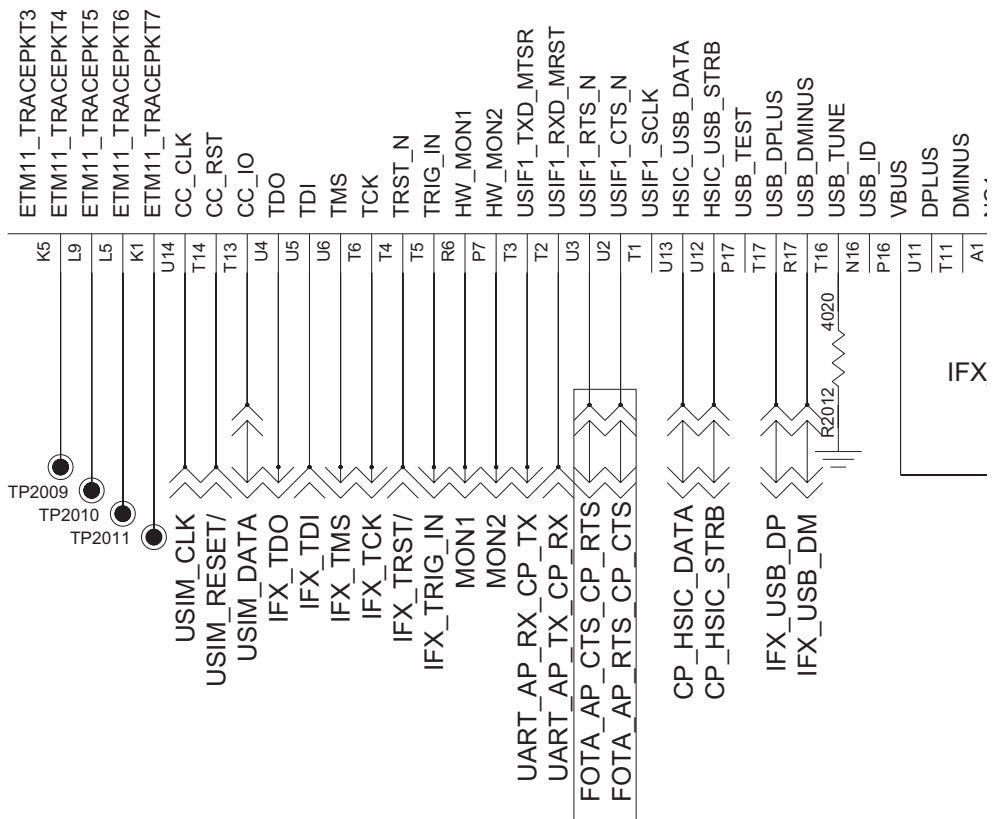
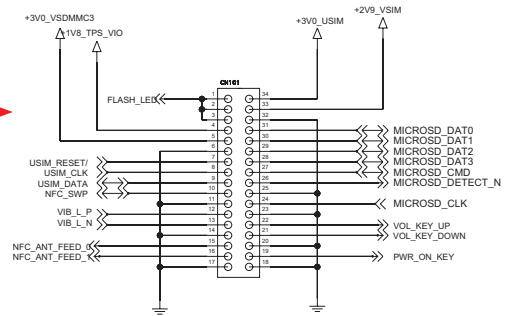


## USIM Socket

\* layout note : CLK and IO must be separated  
NFC\_SWP shielding



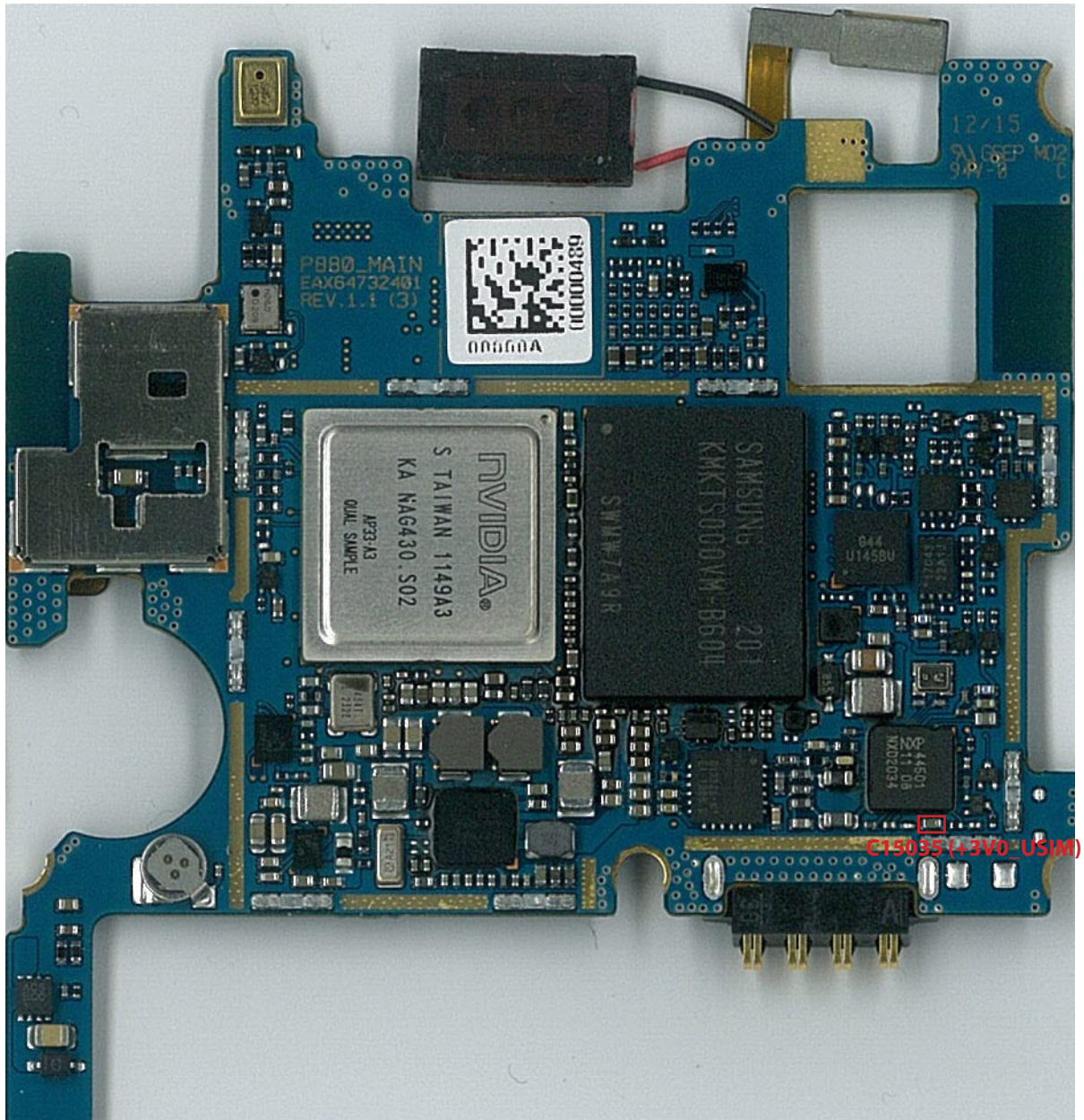
## SUB\_to\_MAIN Connector





## 4. TROUBLE SHOOTING

C15035 (+3V0\_USIM)



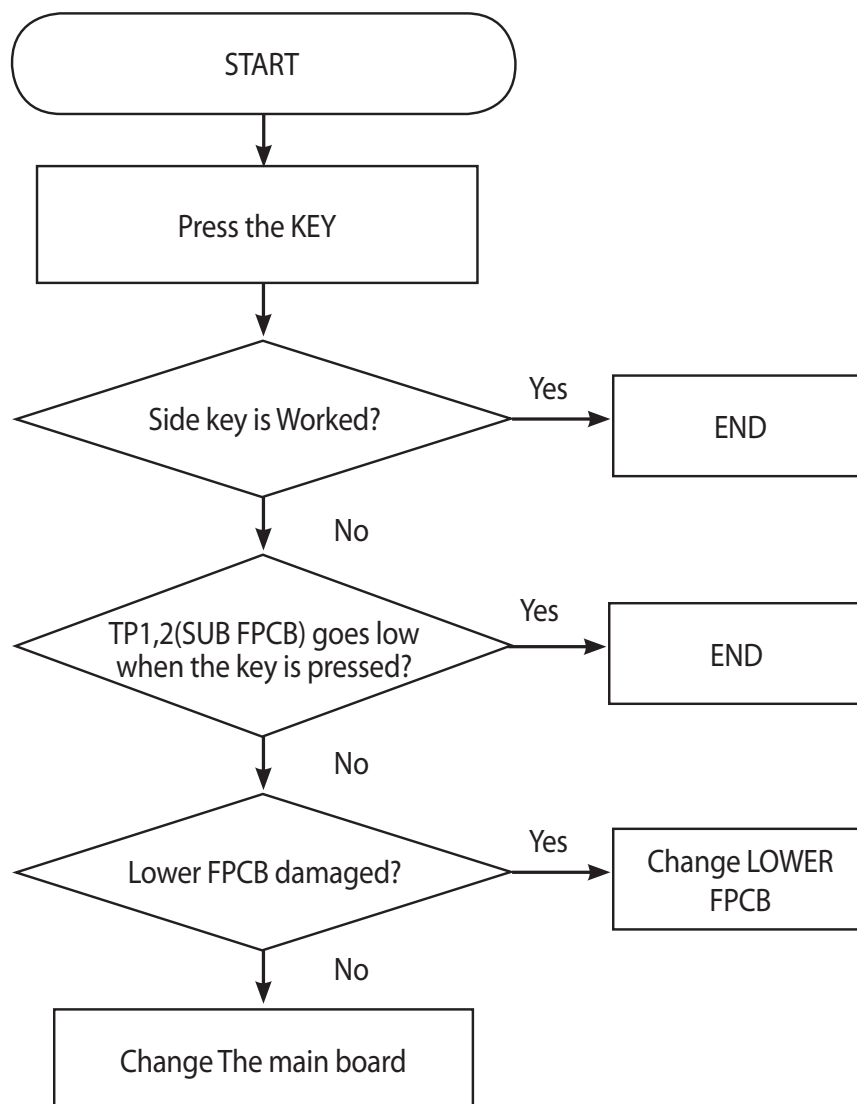
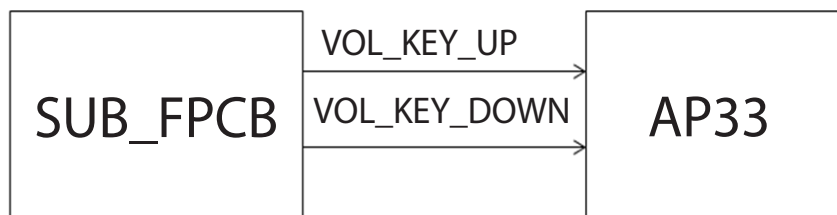


### 4.17 Side Key Troubleshooting

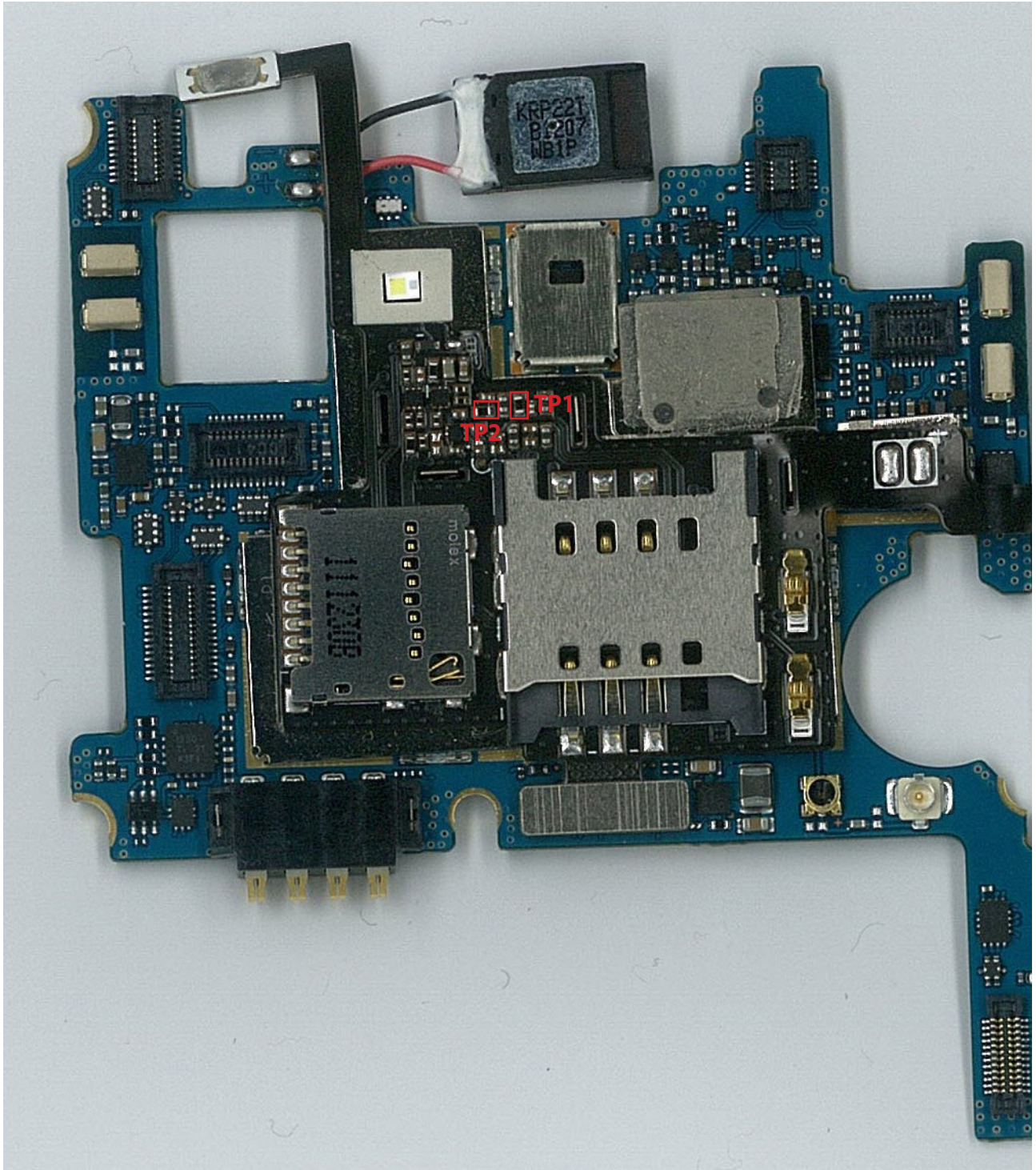
The sequence of detecting LGP880 Side key is,

Side key pressed on LGP880 -> VOL\_KEY\_UP, VOL\_KEY\_DOWN goes low

Block Diagram of Side key connection is shown below

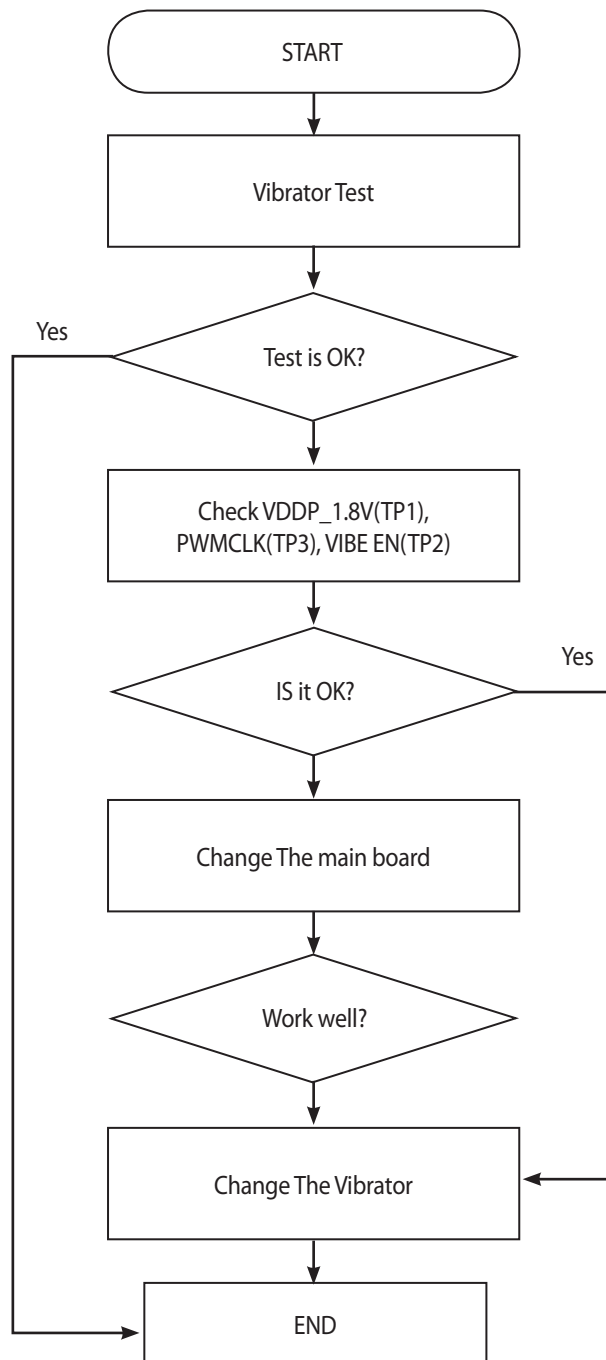


## 4. TROUBLE SHOOTING

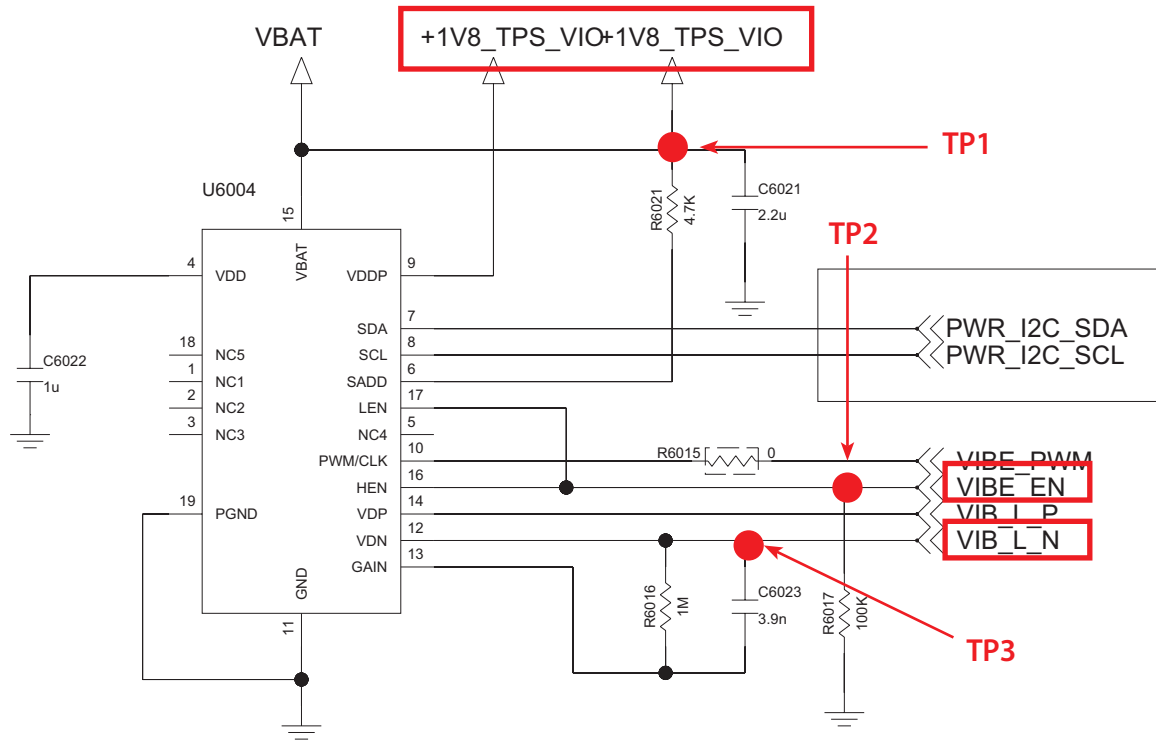


### 4.18 Vibrator Troubleshooting

Check out the setting menu on the phone. If not, check Test points shown on the pictures.

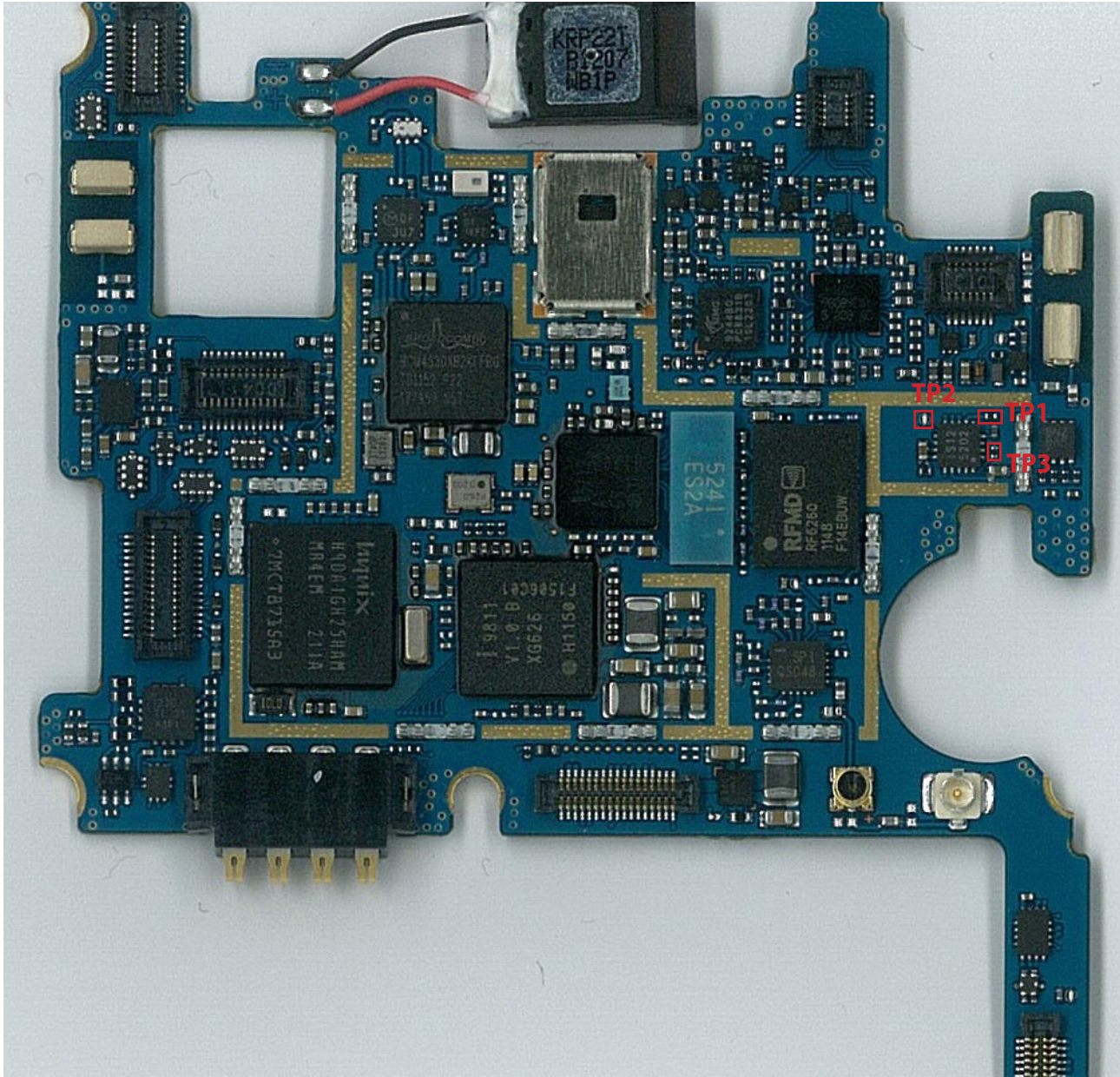


# Linear Motor Driver



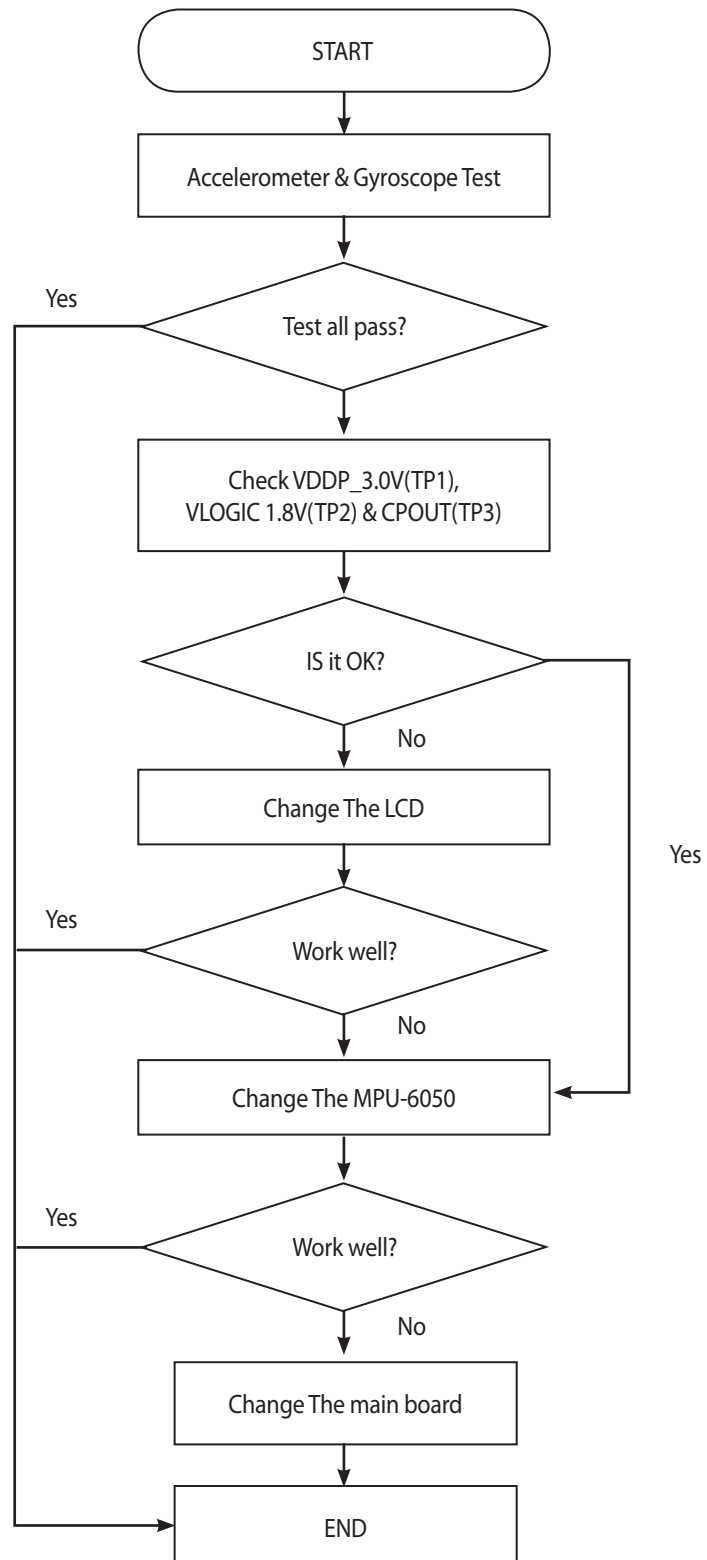


## 4. TROUBLE SHOOTING



### 4.19 Motion/Gyro sensor(MPU-6050) trouble shooting

When the motion/gyro sensor does not work, check the VDD and VLOGIC first, and then change the LDOs or MPU-6050 sensor.



#### Measurement

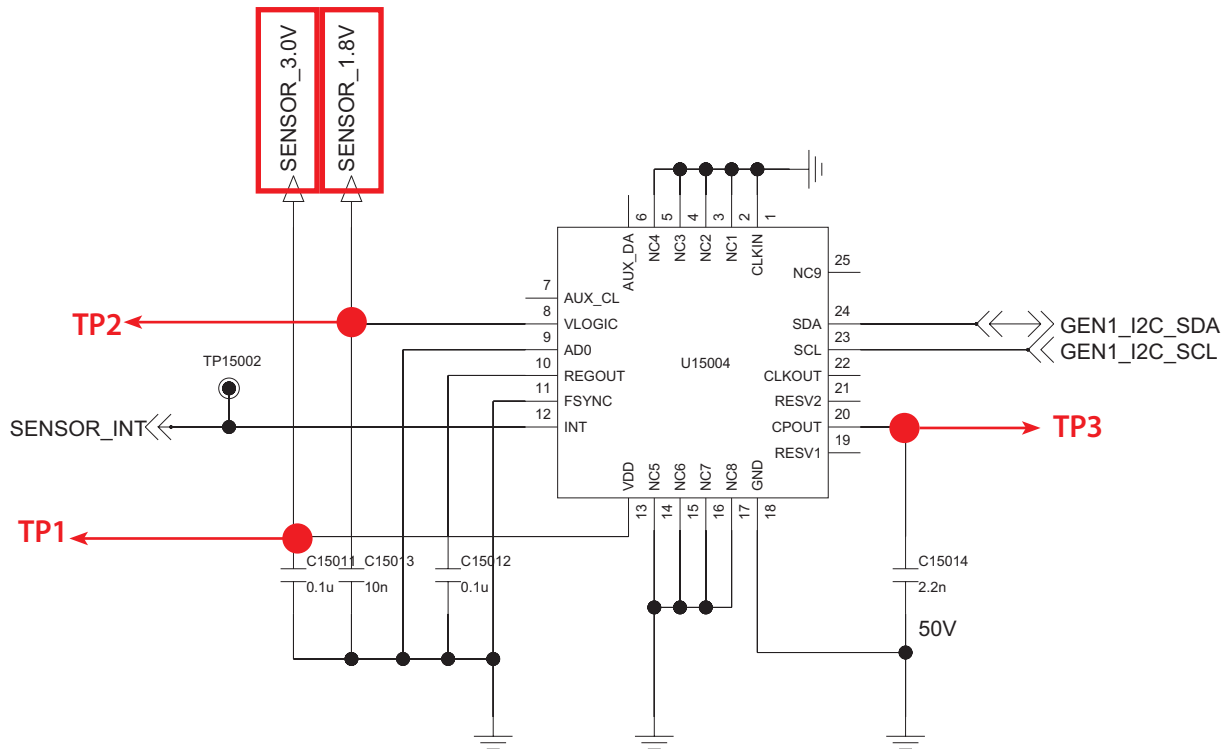
SENSOR\_3.0V

SENSOR\_1.8V

CPOUT

**GYRO+MOTION Sensor In Main board**

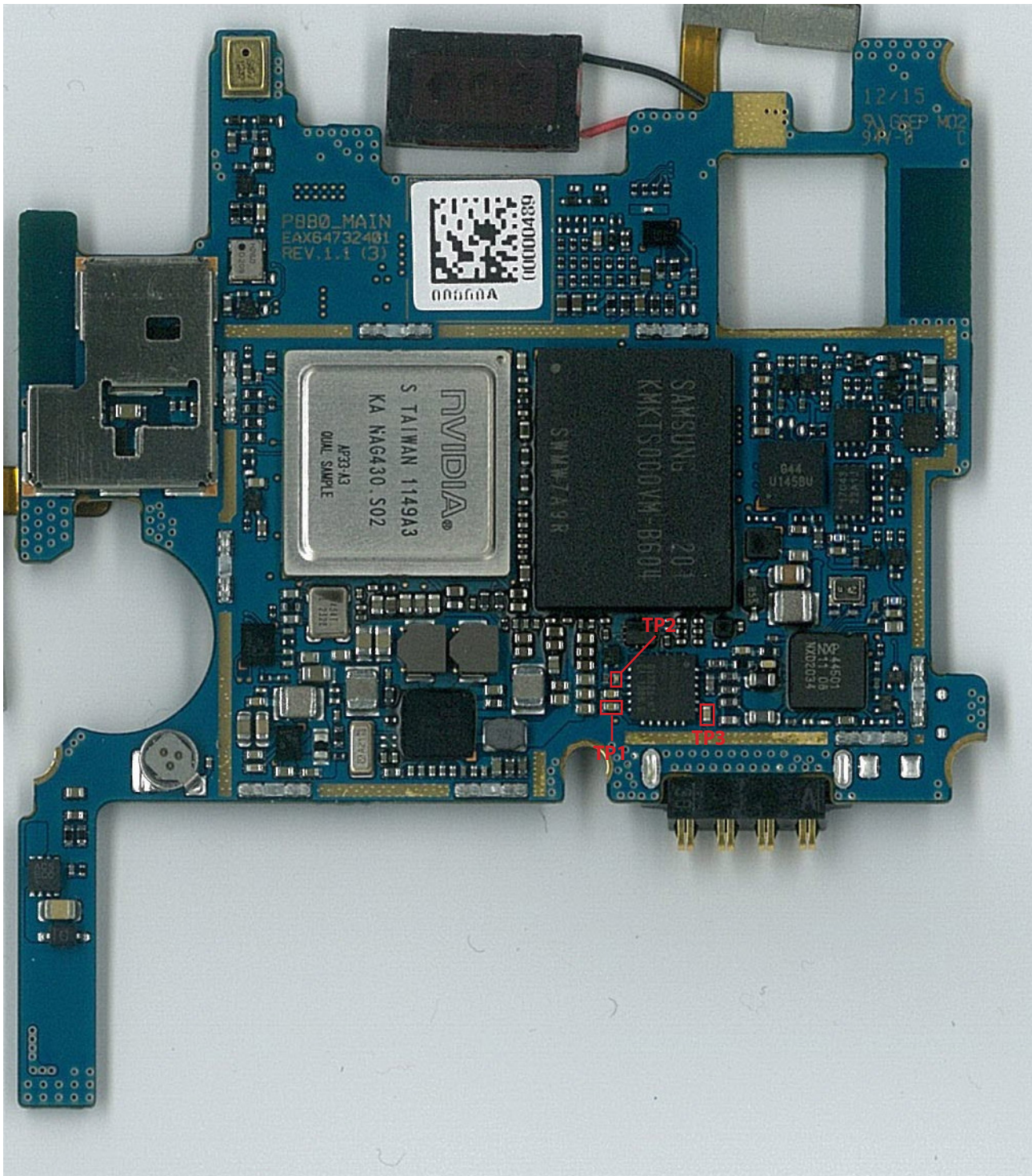
## 4. TROUBLE SHOOTING





## 4. TROUBLE SHOOTING

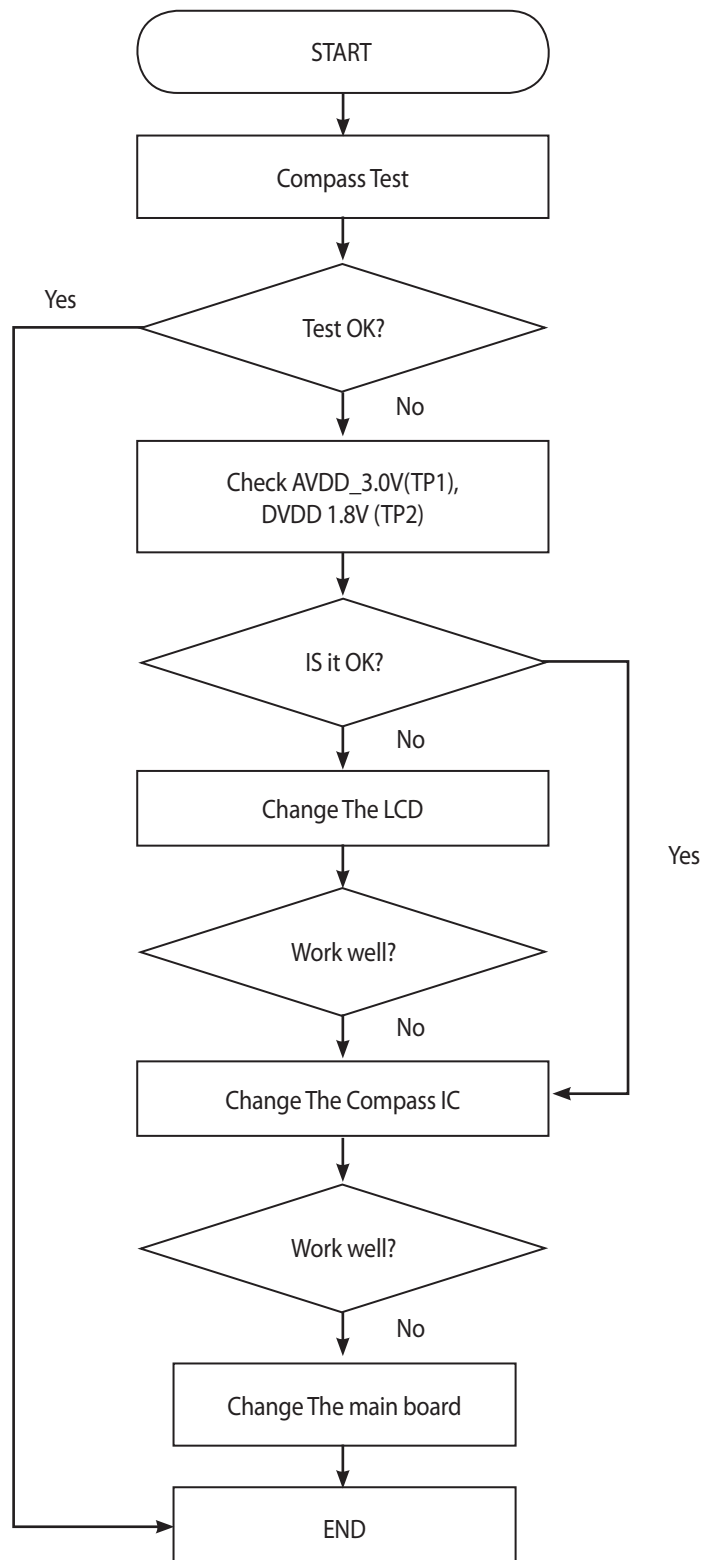
BOTTOM Of Main board



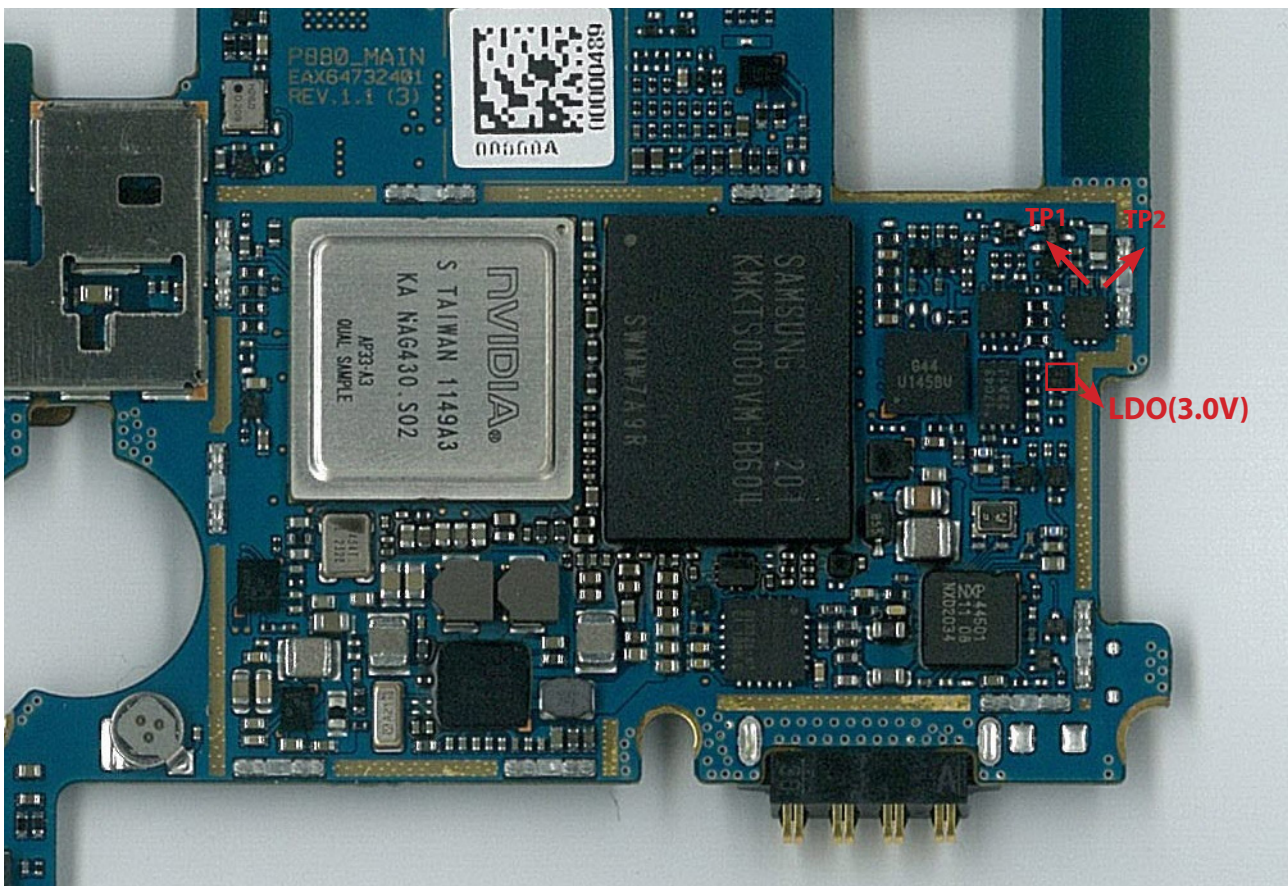
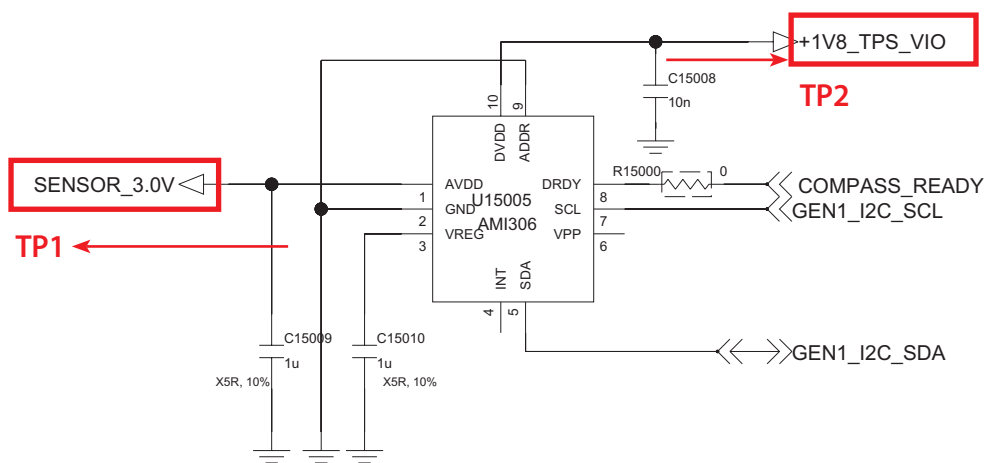


## 4.20 Compass sensor trouble

Check out the setting menu on the phone. If not, check Test points shown on the pictures.



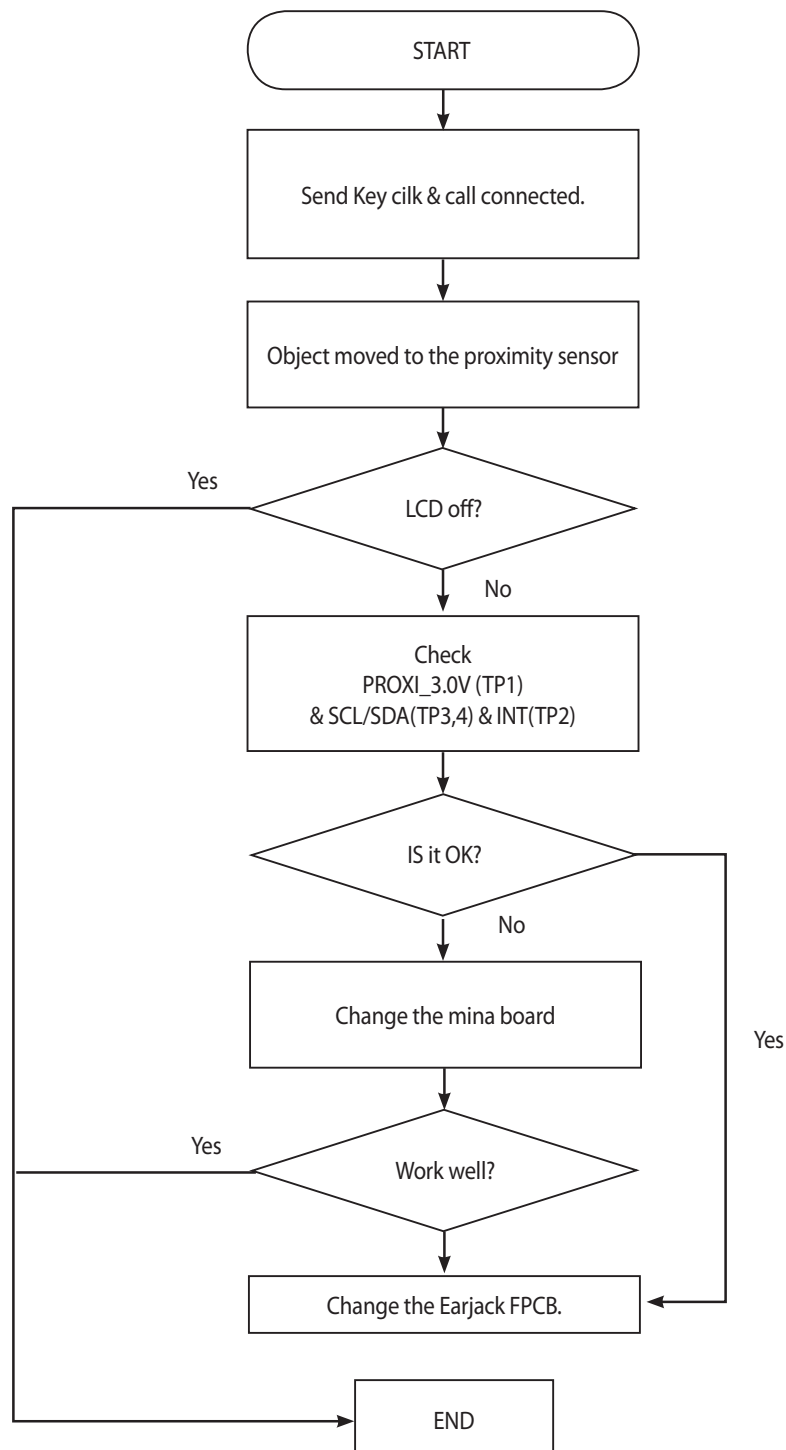
# Compass Sensor



### 4.21 Proximity Sensor on/off trouble

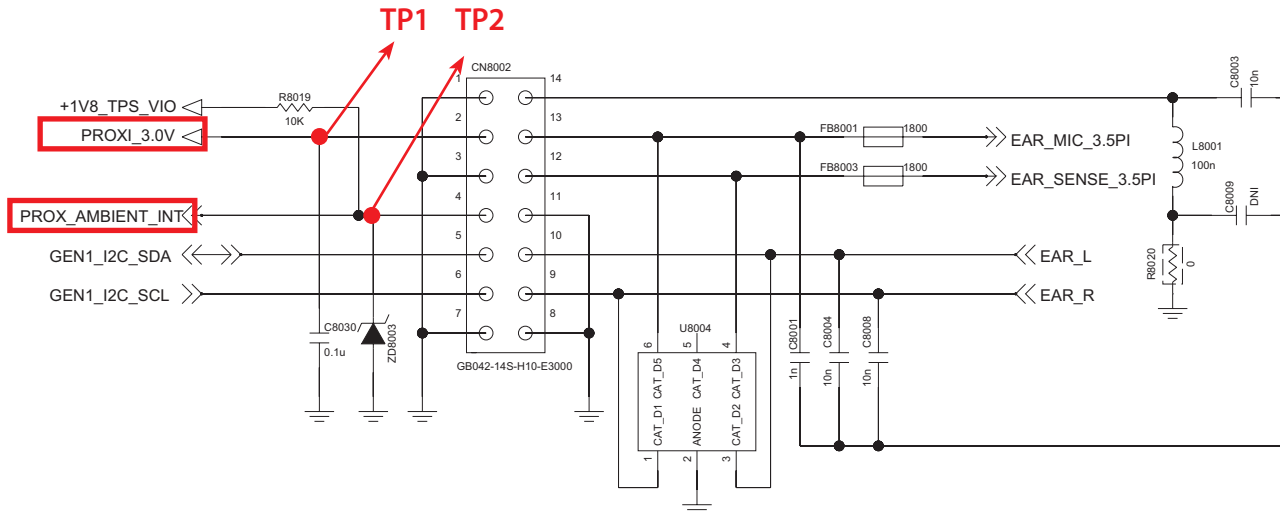
Proximity Sensor is worked as below:

Send Key click -> Phone number click -> Call connected -> Object moved to/from the sensor -> Control the screen's on/off operation automatically

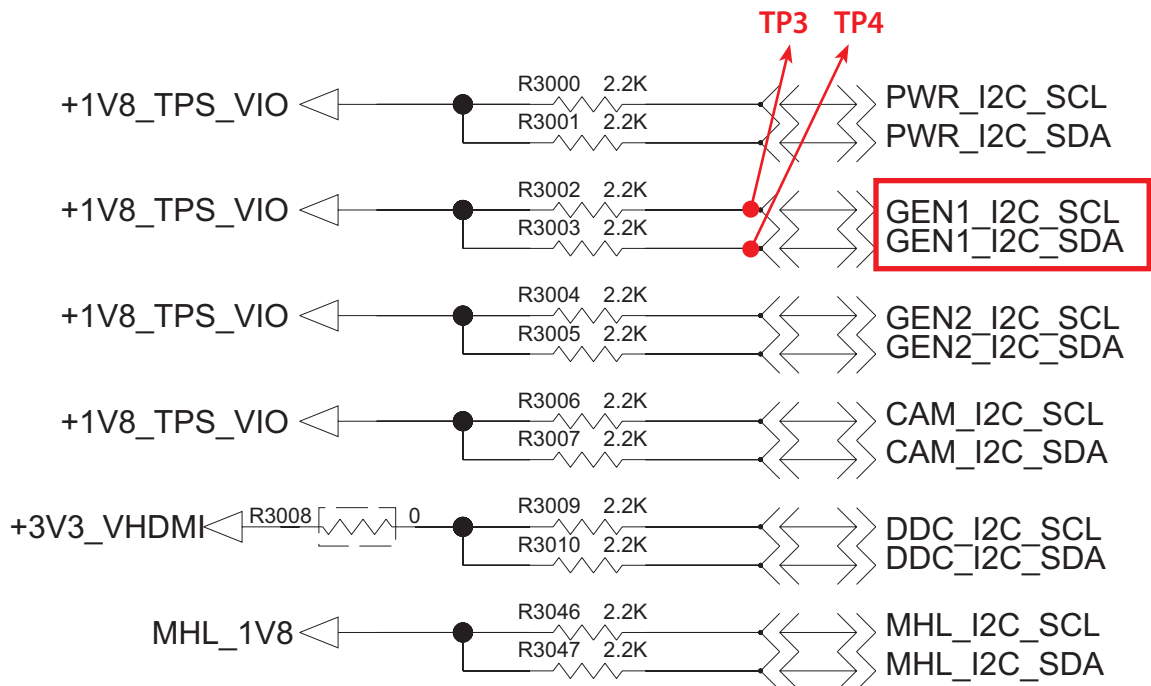


## 4. TROUBLE SHOOTING

### FPCB\_UPPER CONNECTOR

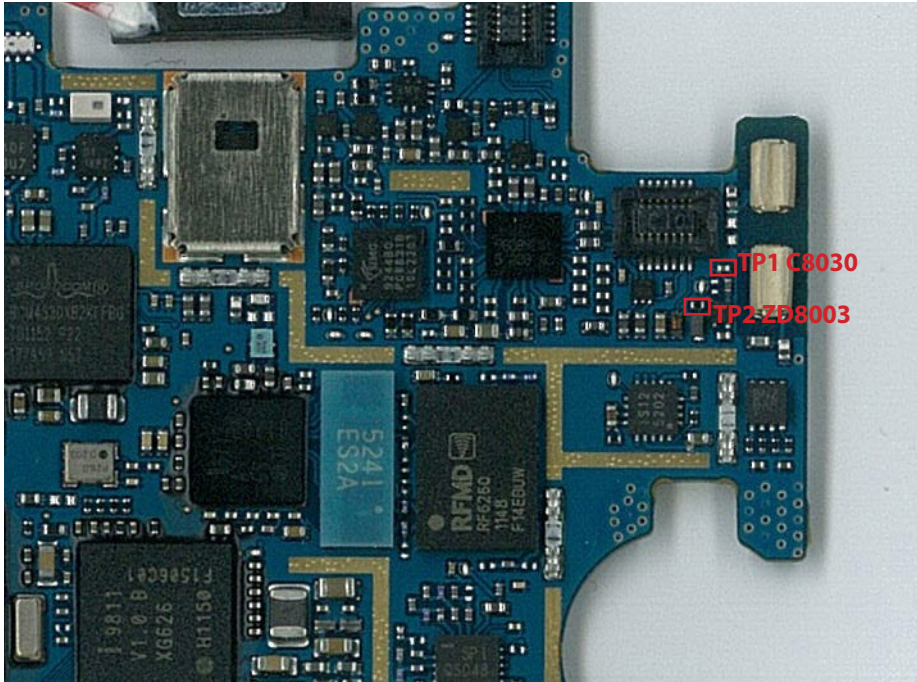


### AP33 I2C MAP

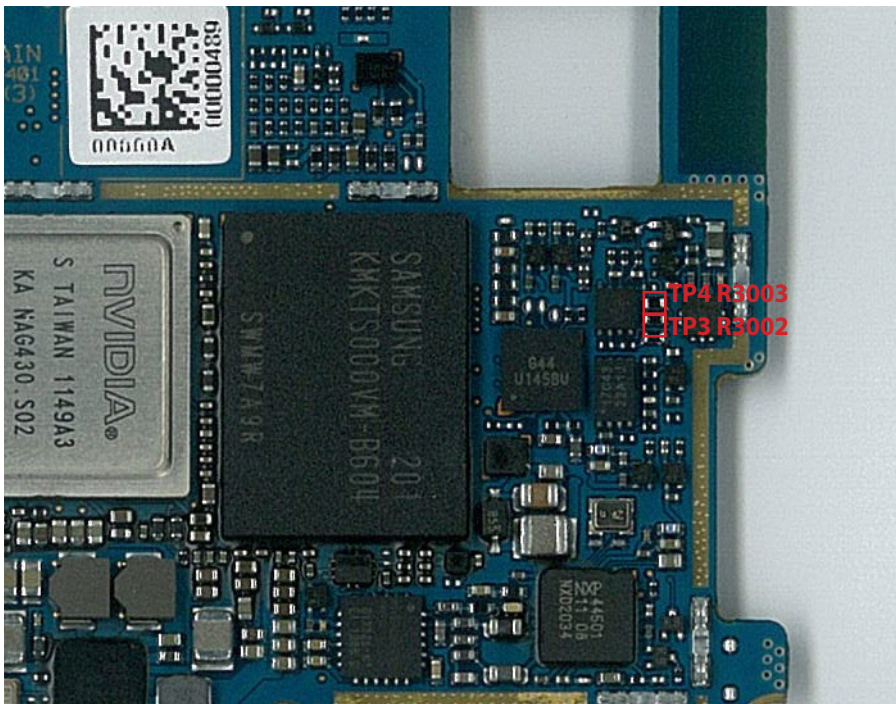




## TOP of Main board



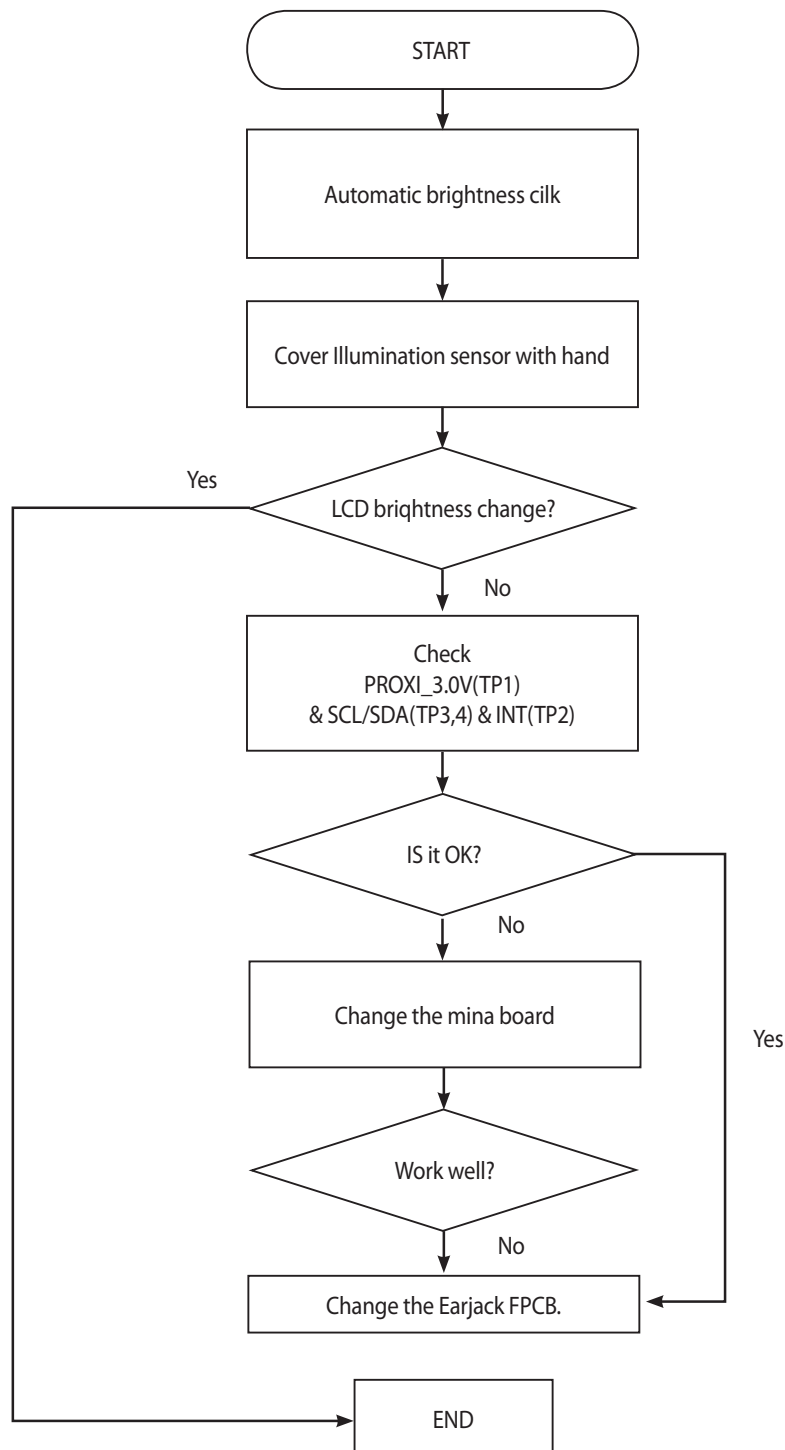
## BOTTOM Of Main board



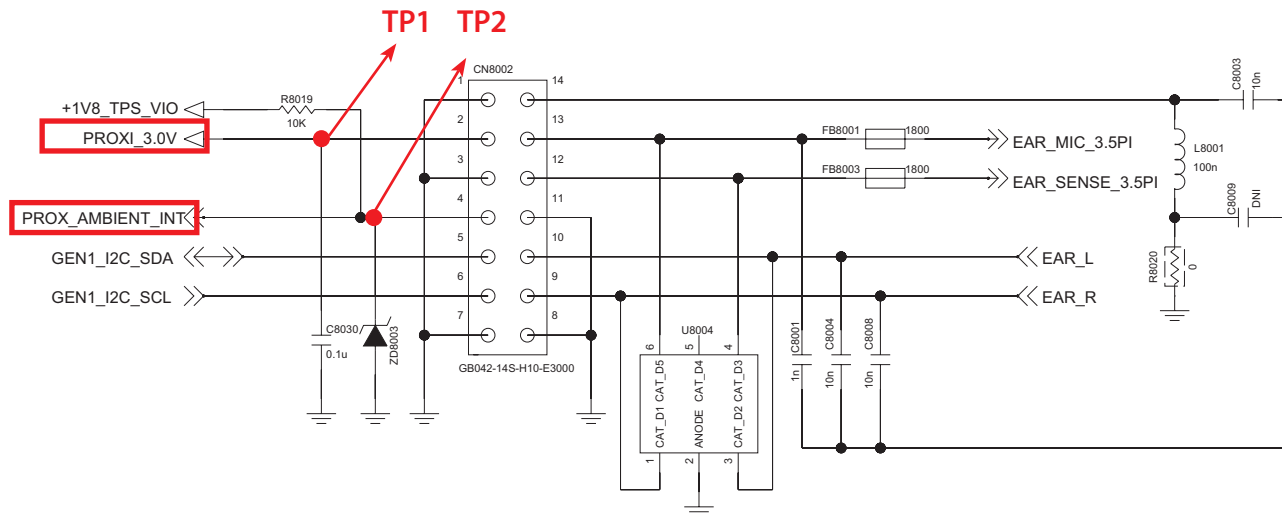
### 4.22 Illumination Sensor on/off trouble

Illumination Sensor is worked as below:

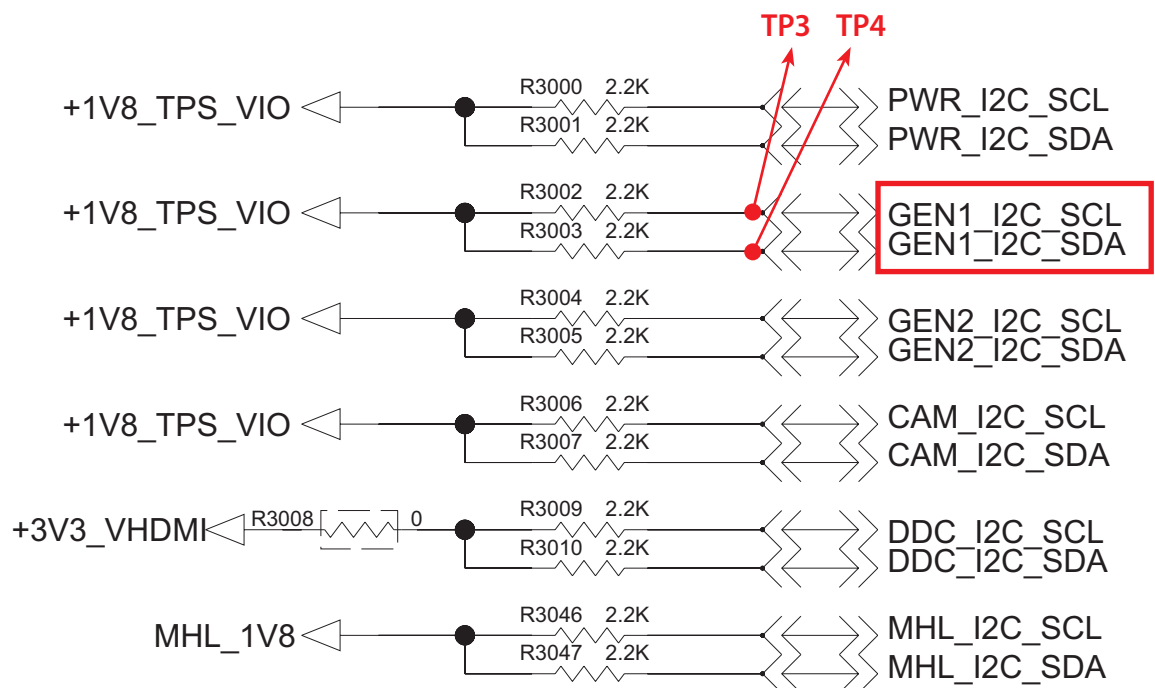
Menu Key click -> Settings click -> Display click-> Brightness click-> Automatic brightness click -> Move the UI bar to select the base brightness



### FPCB\_UPPER CONNECTOR



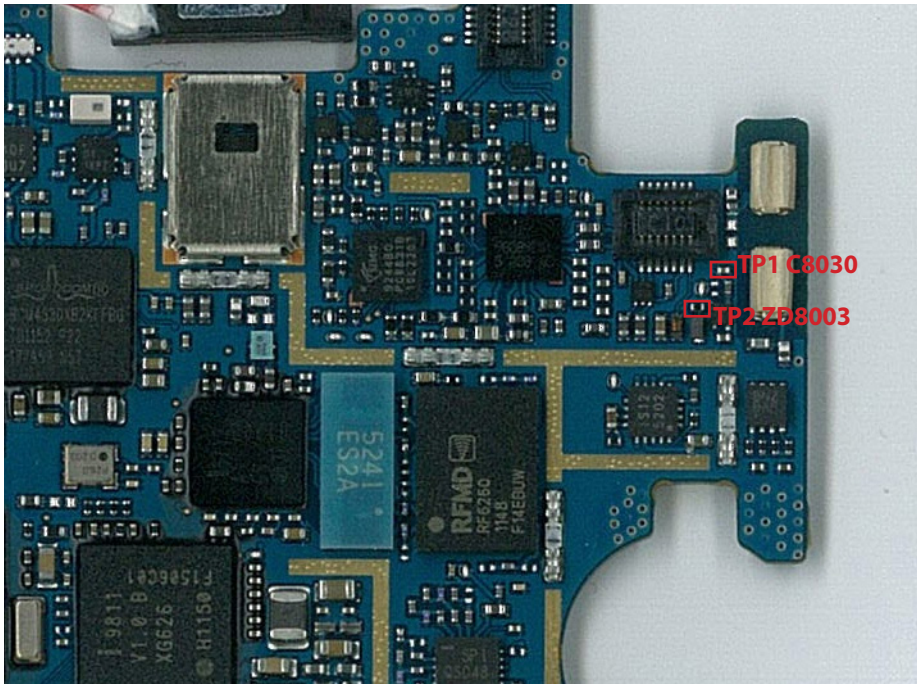
### AP33 I2C MAP



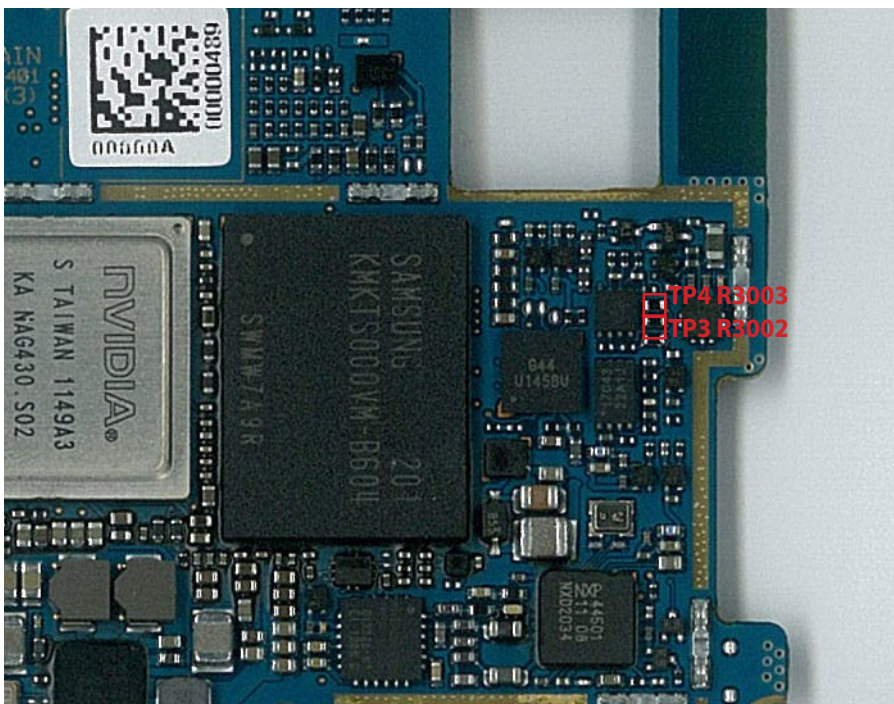


## 4. TROUBLE SHOOTING

TOP of Main board

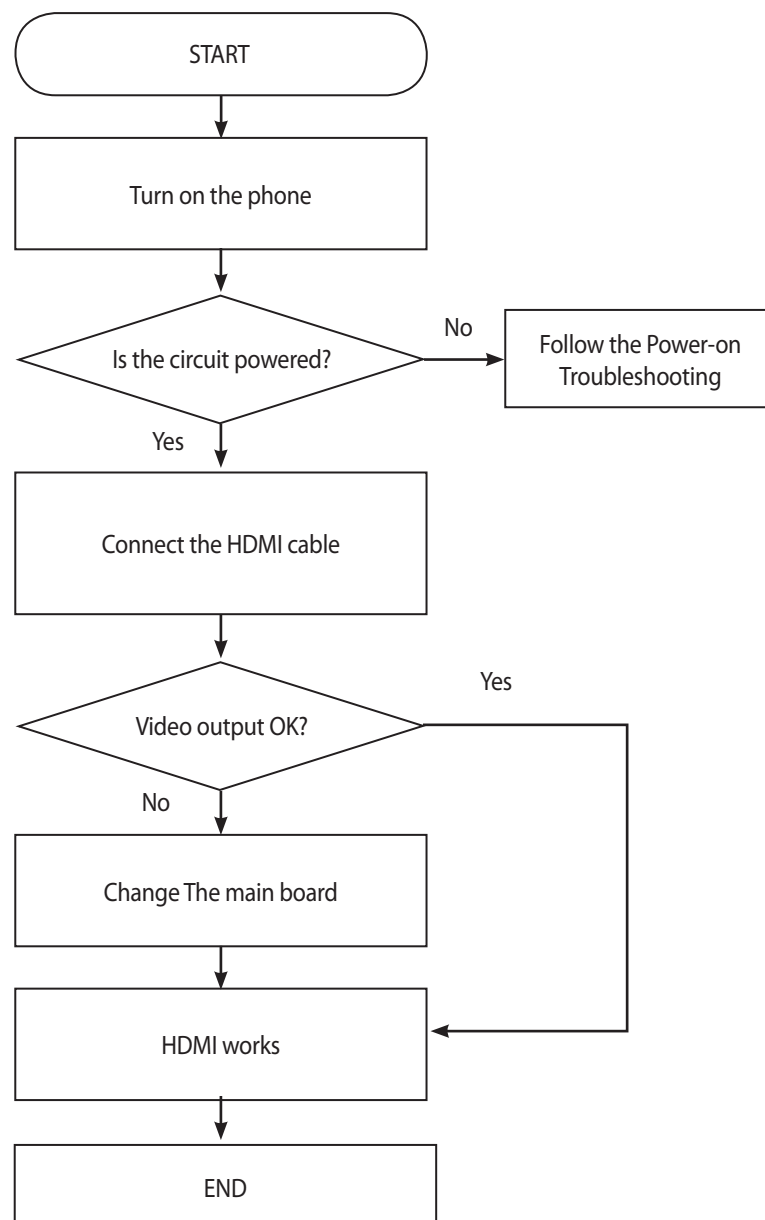


BOTTOM Of Main board



### 4.23 HDMI Troubleshooting

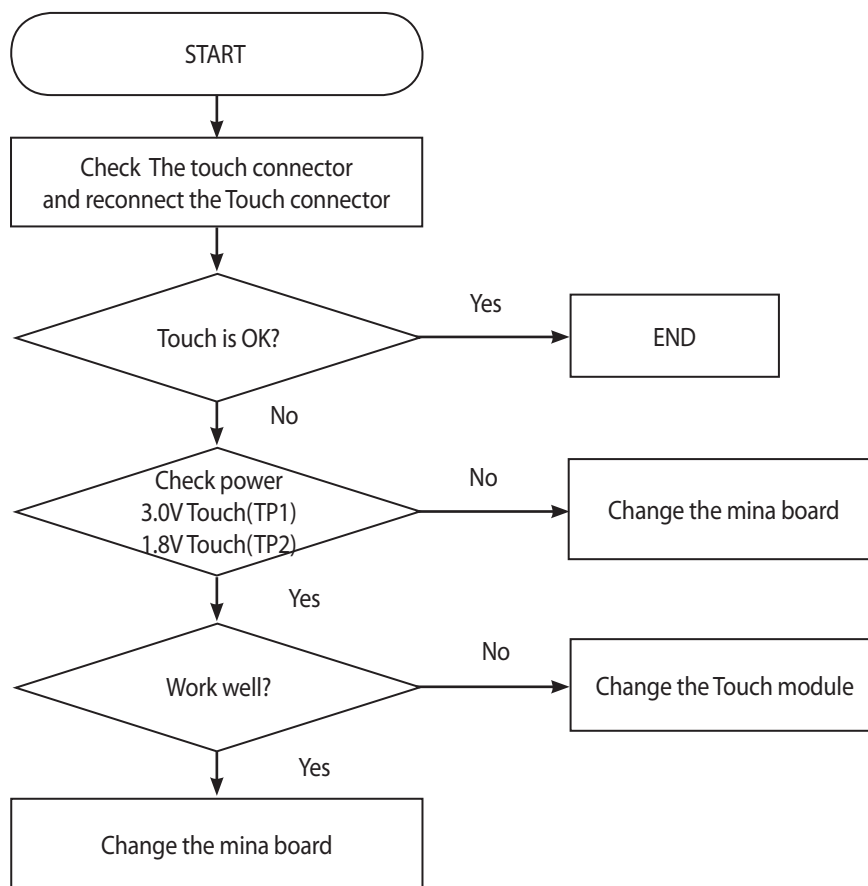
Check out the setting menu on the phone and then set the proper resolution for the outer display as shown below



### 4.24 Touch trouble

Touch control signals are generated by AP30. Those signal's path are :

AP30 -> Touch Module

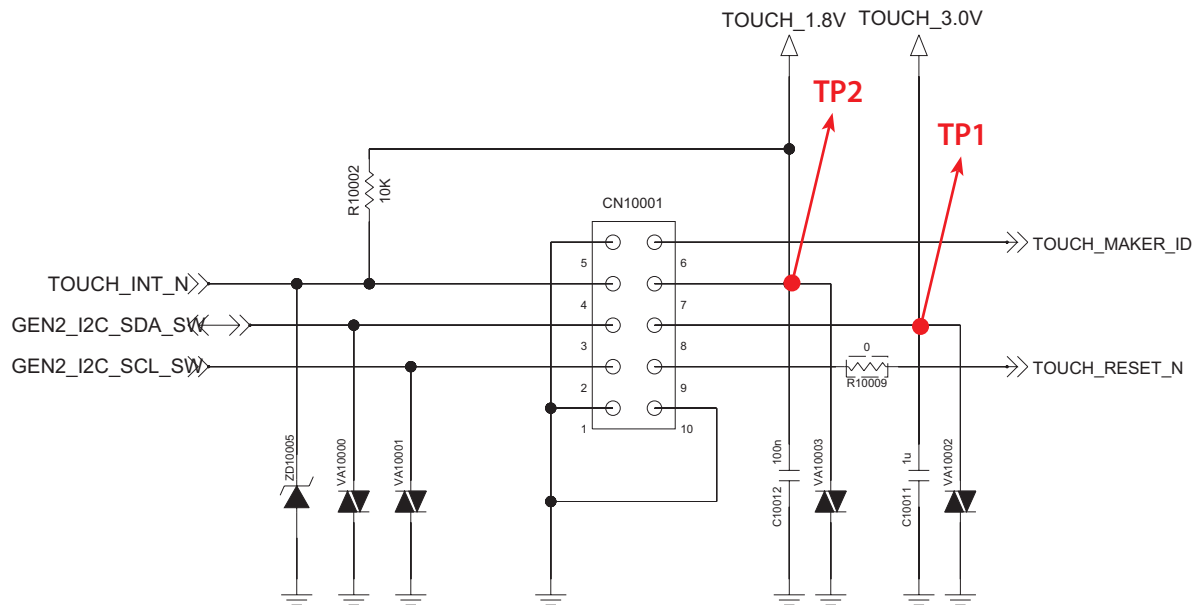


#### Measurement

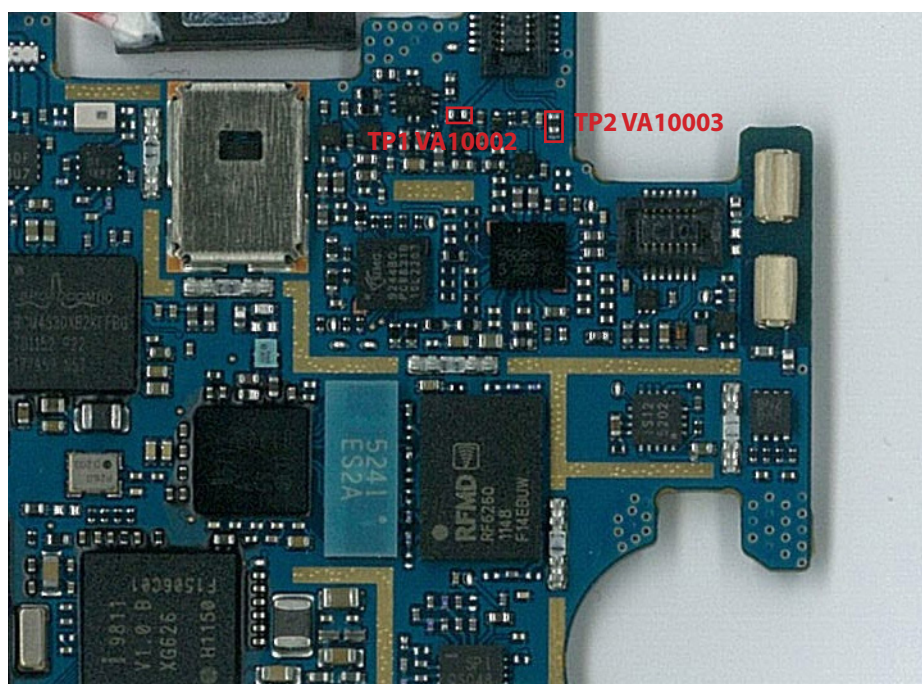
3.0V TOUCH (TP1)

1.8V TOUCH (TP2)

## 4. TROUBLE SHOOTING



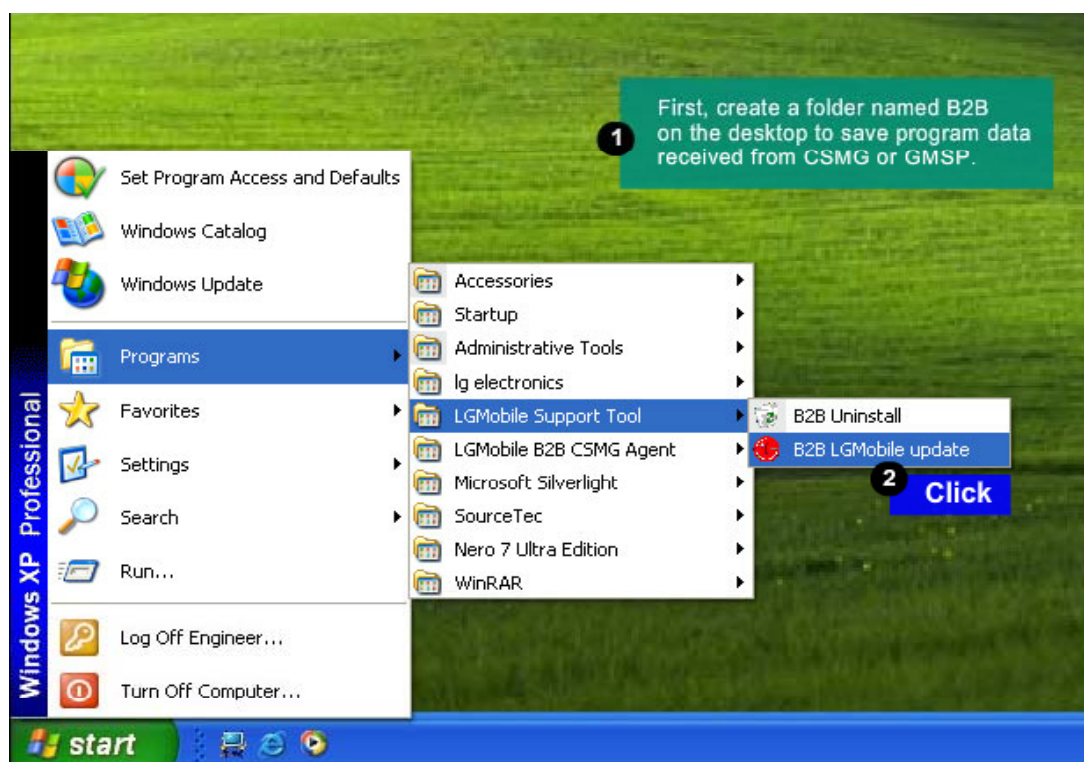
### TOP of Main board



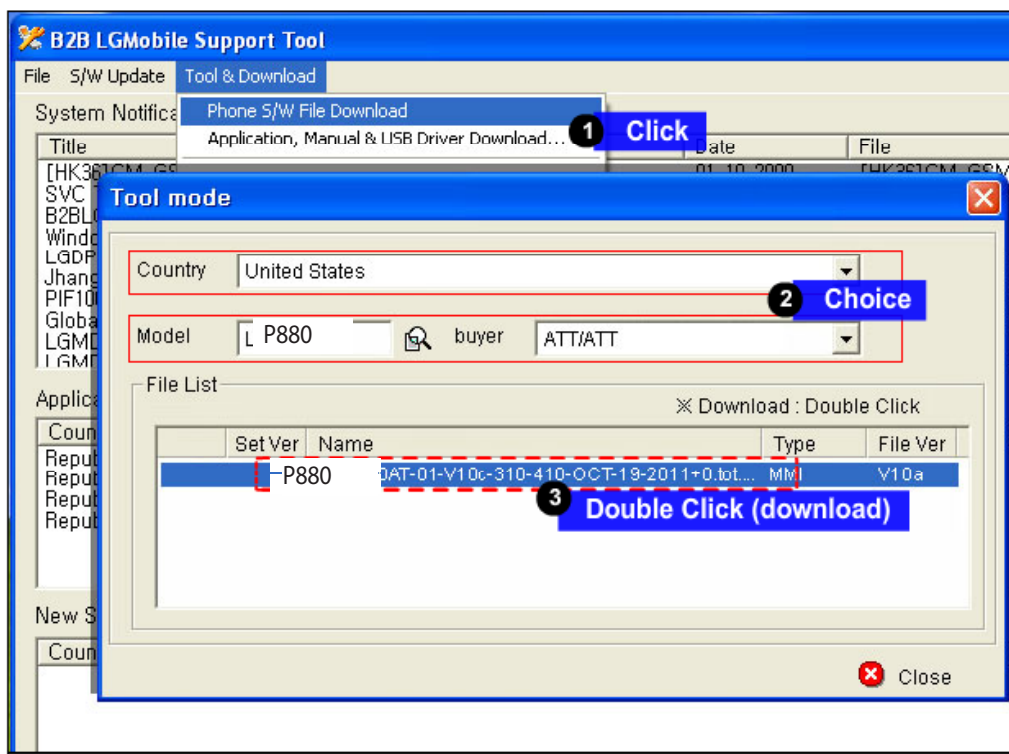
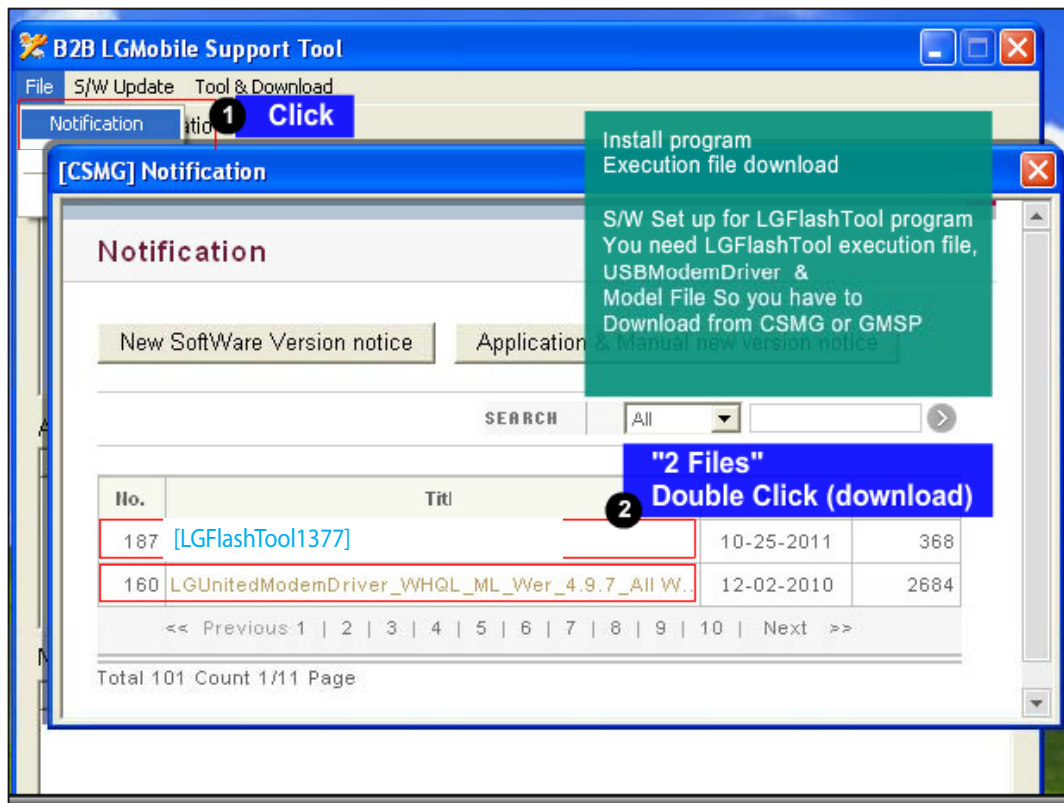


## 5. DOWNLOAD

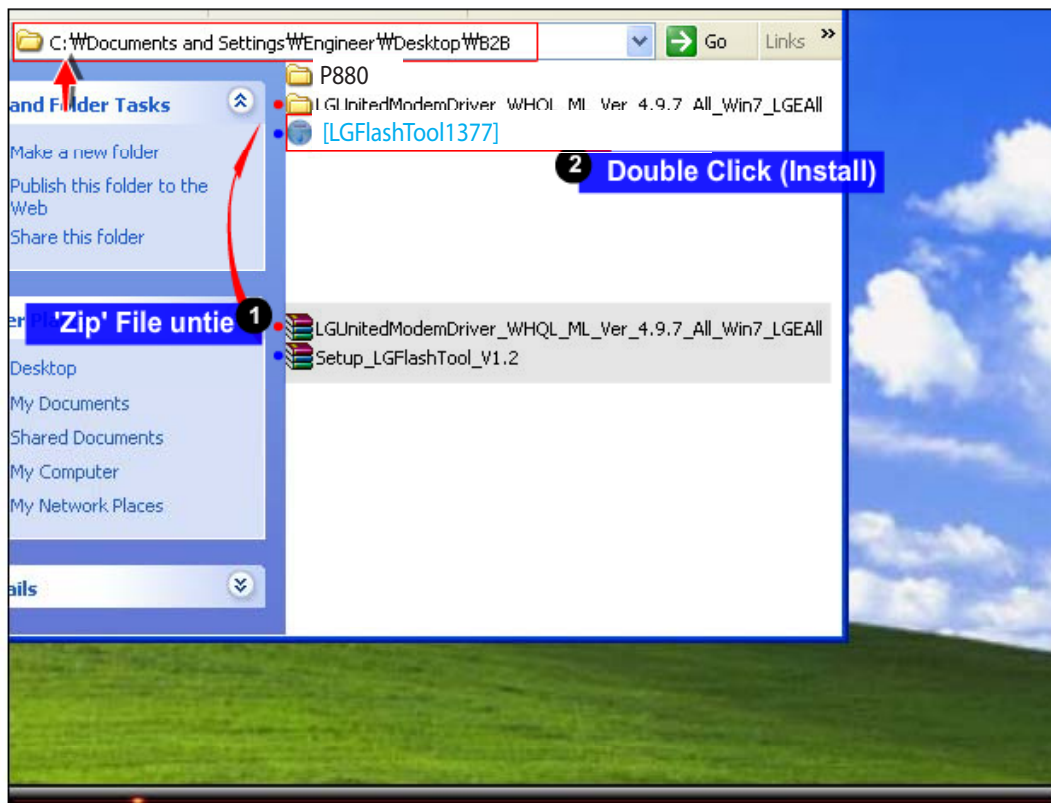
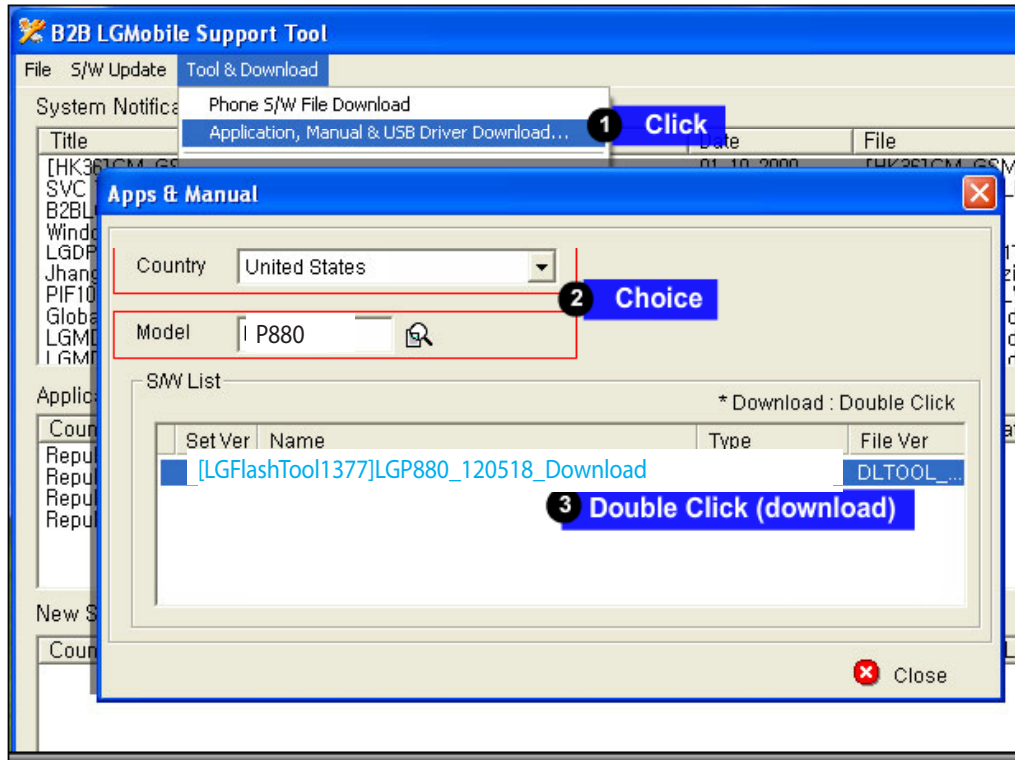
TOOL INFORMATION		
TOOL VERSION	DLL NAME	USB DRIVER
[LGFlashTool1377]	[LGFlashTool1377]LGP880_120518_ Download	LG United Mobile Driver Version 3.6 Package Release 2011.11.01
<b>Please Check the Version to "B2B"</b>		
H/W		
	Name	Part No.
D/L Cable	Micro 5P (56-open-910K) USB DLC	RAD32167835



## 5. DOWNLOAD

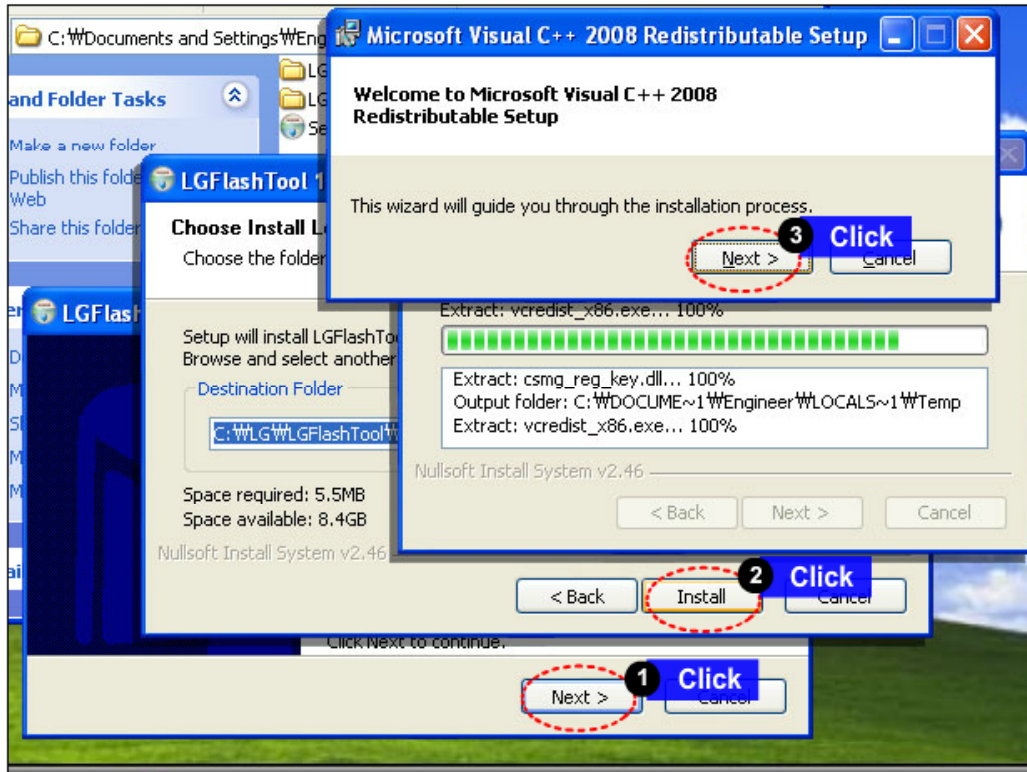


## 5. DOWNLOAD

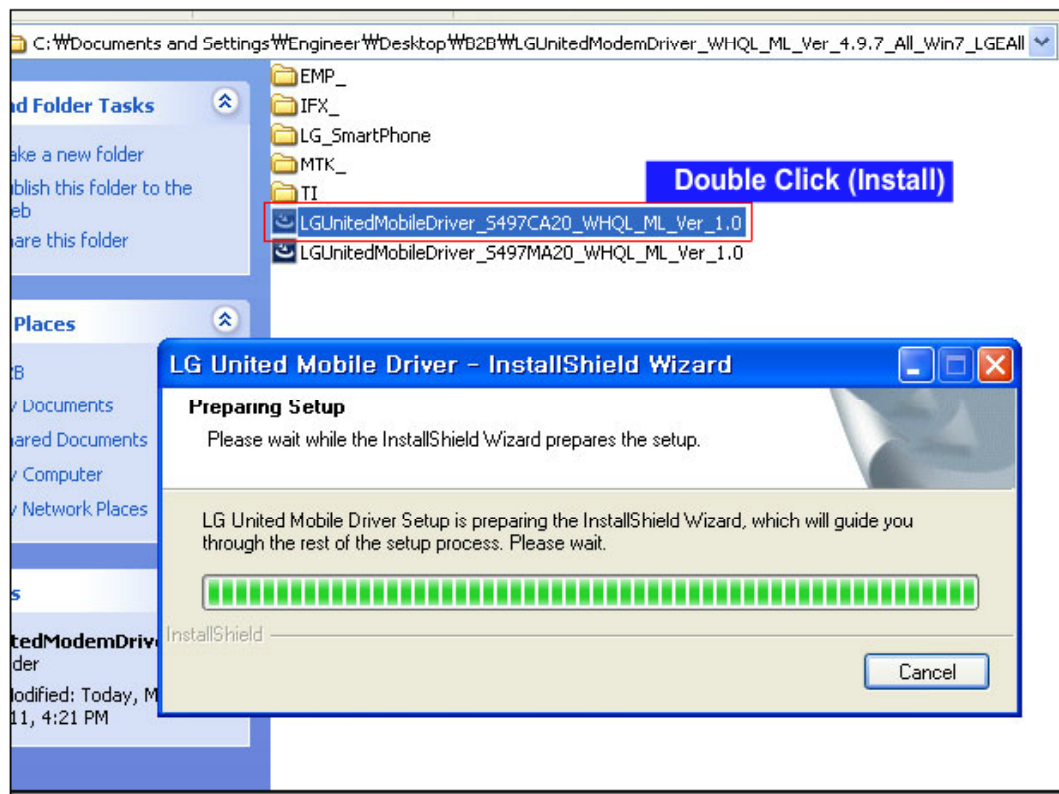
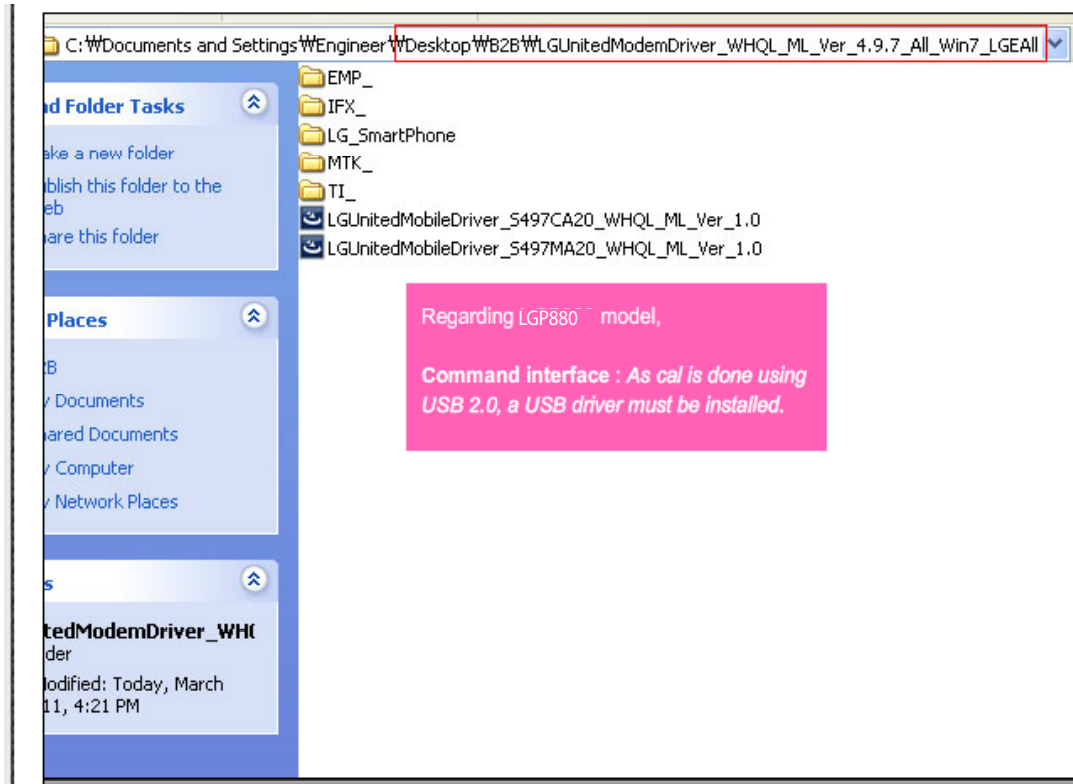


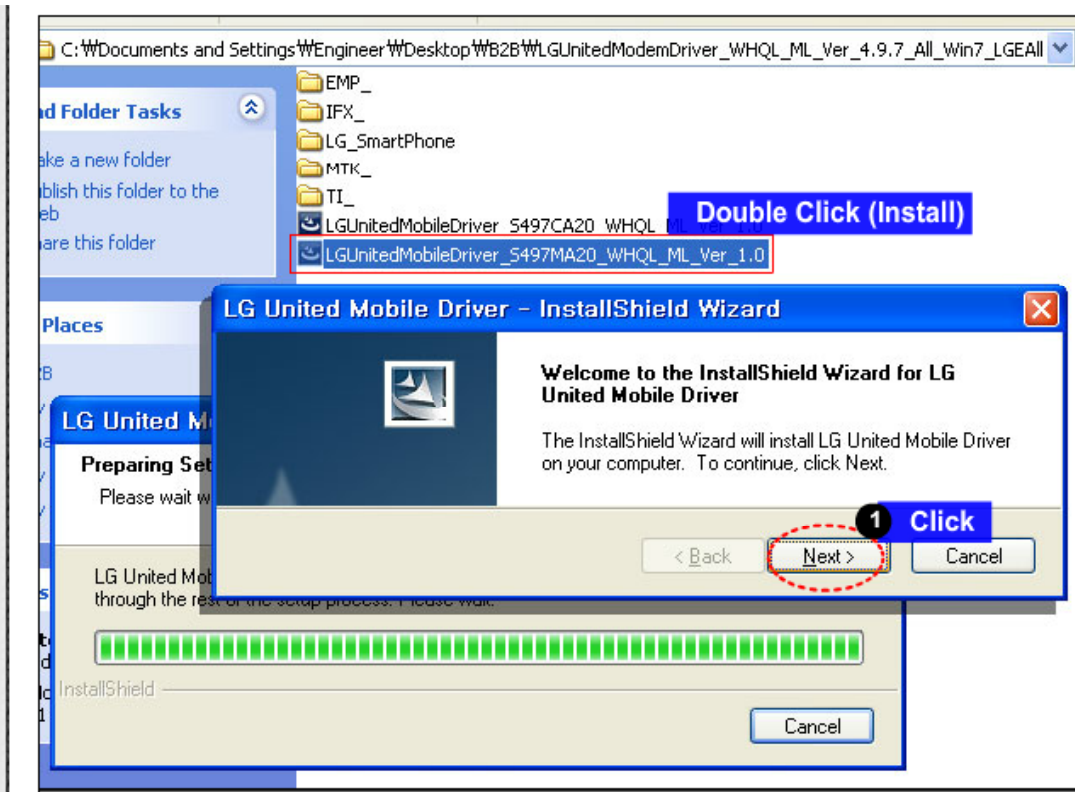
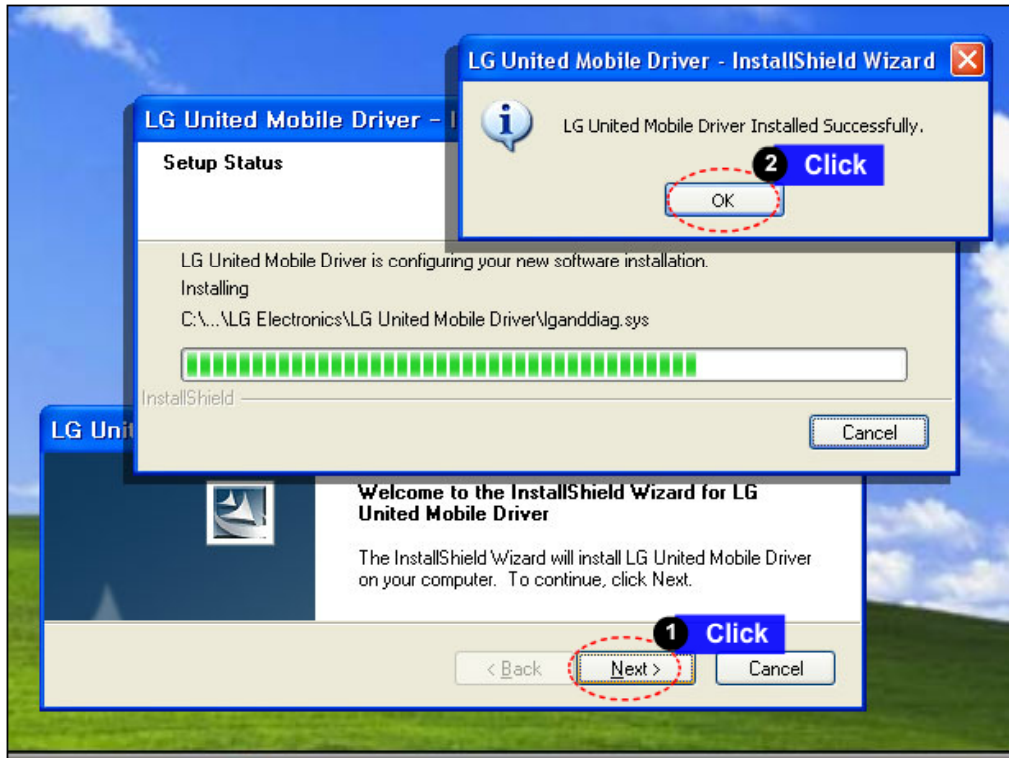


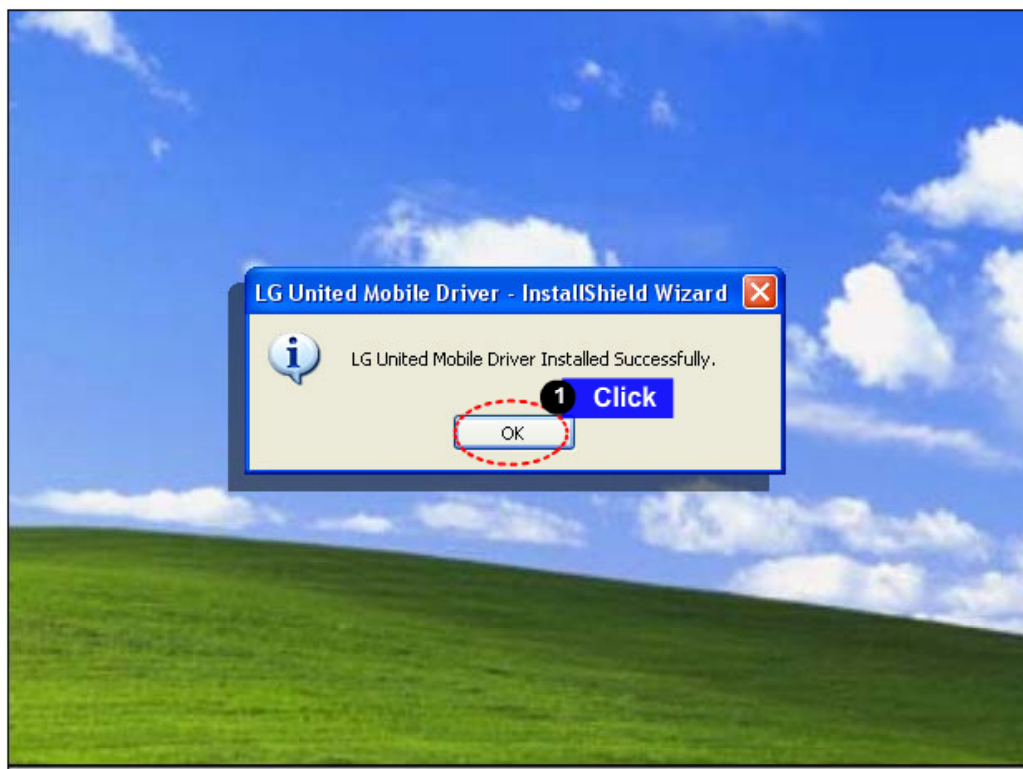
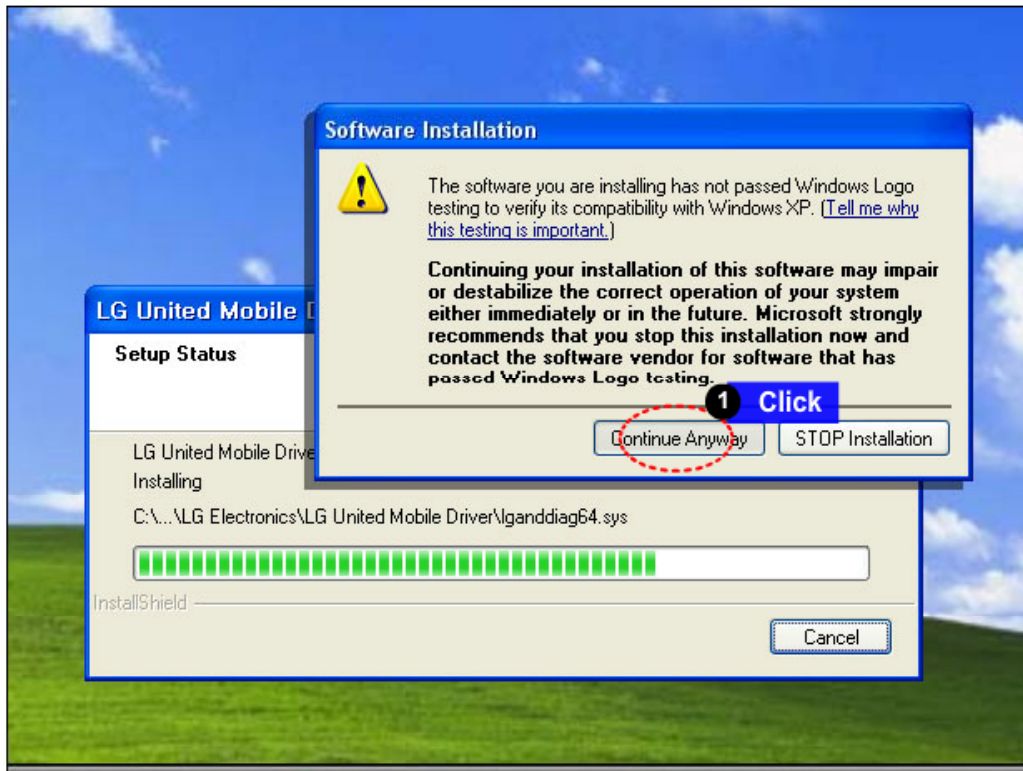
## 5. DOWNLOAD



## 5. DOWNLOAD

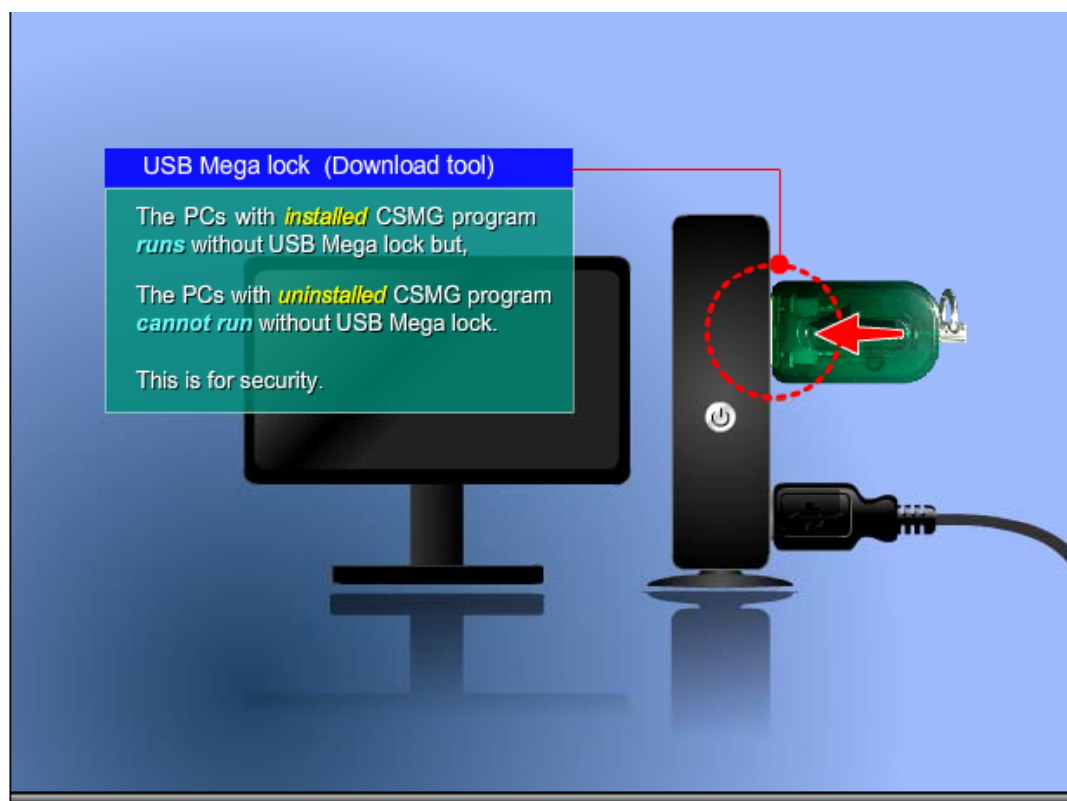
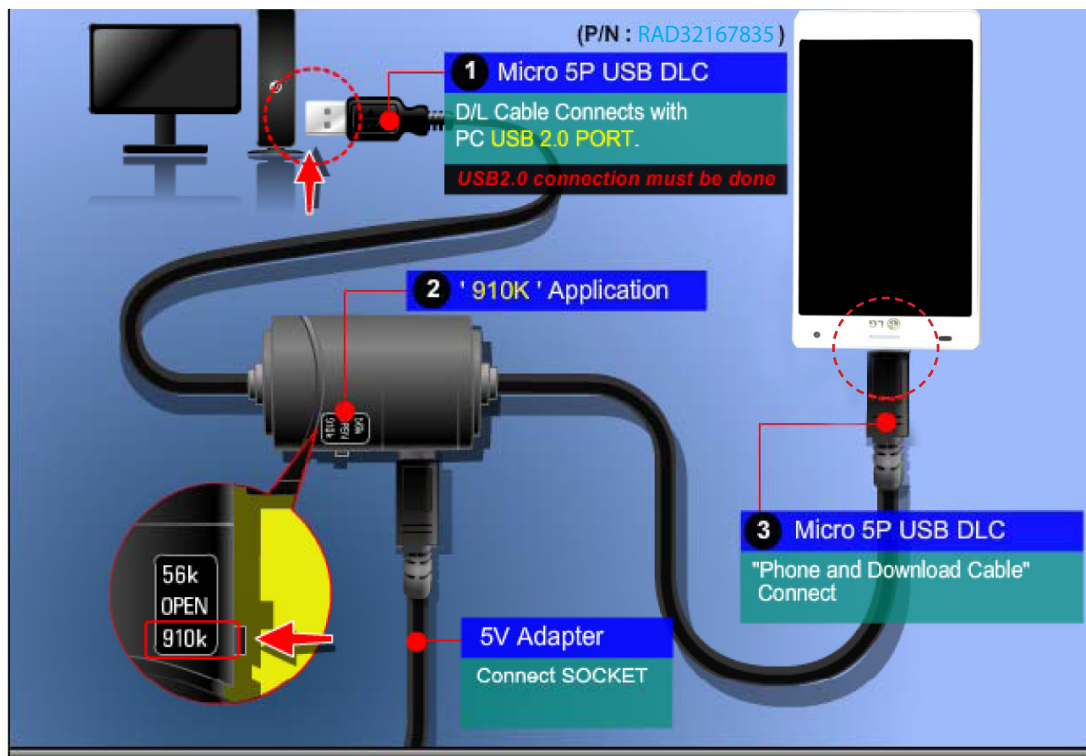


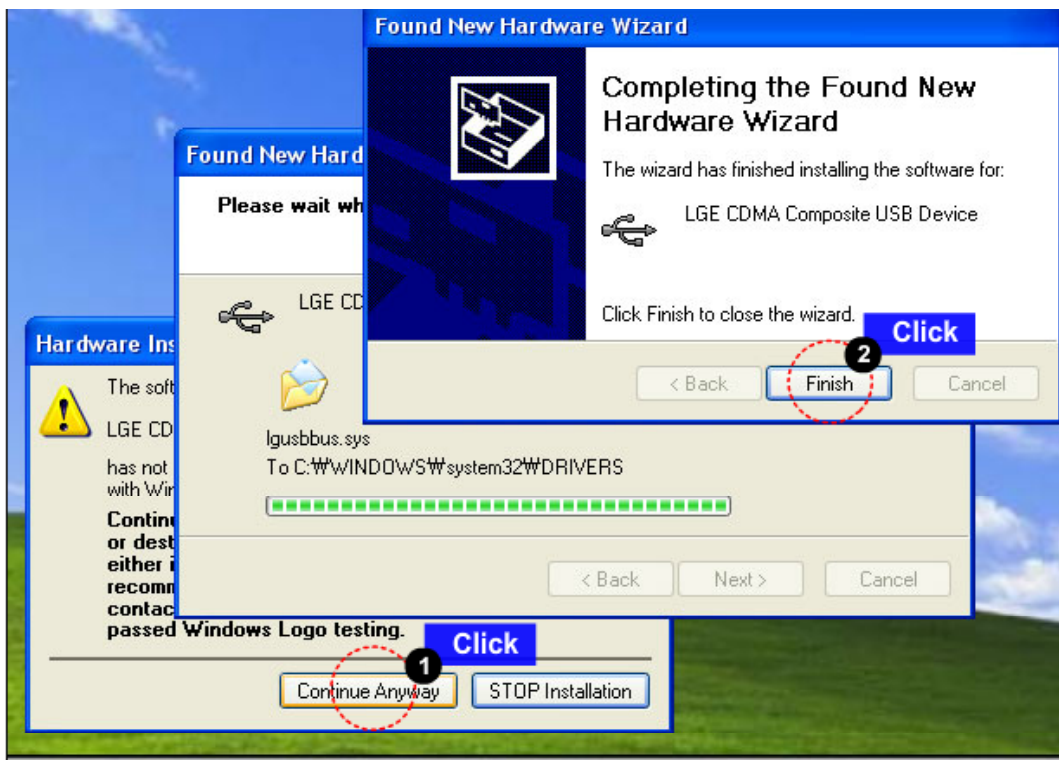
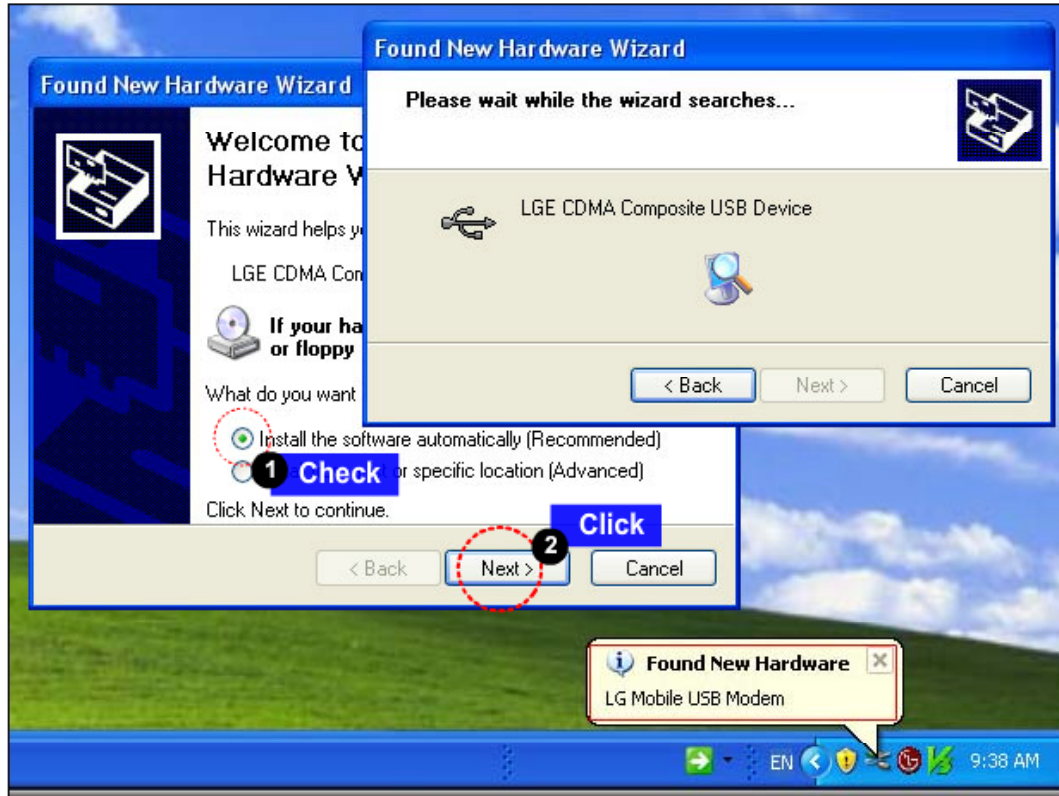




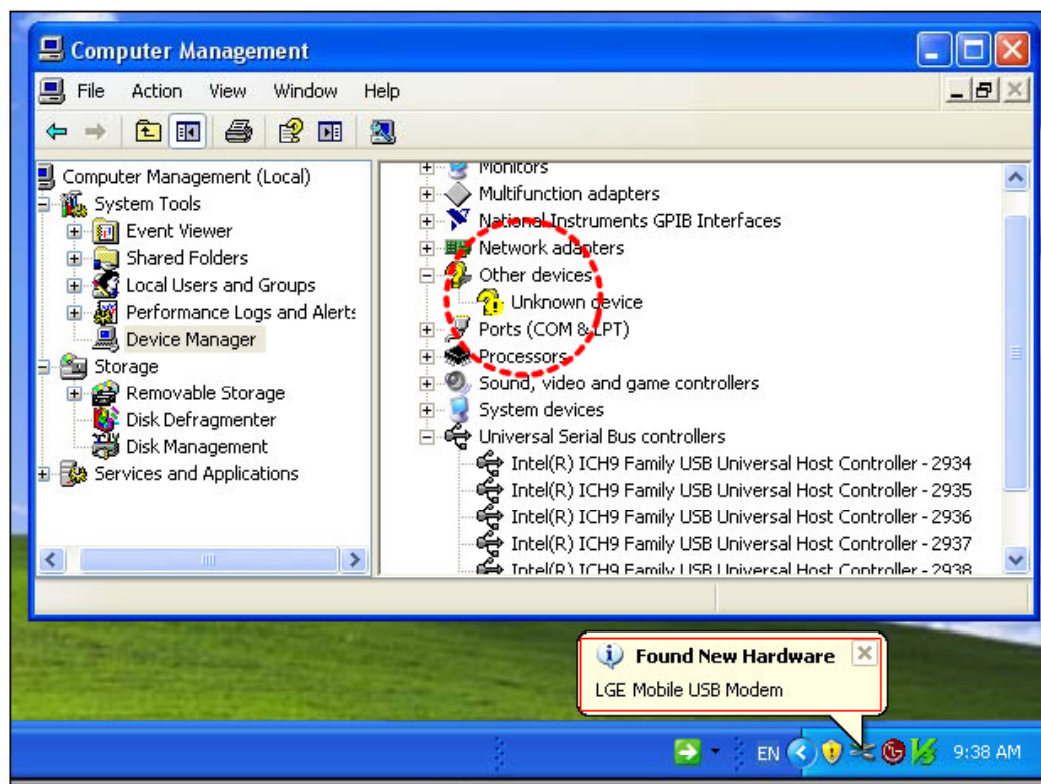
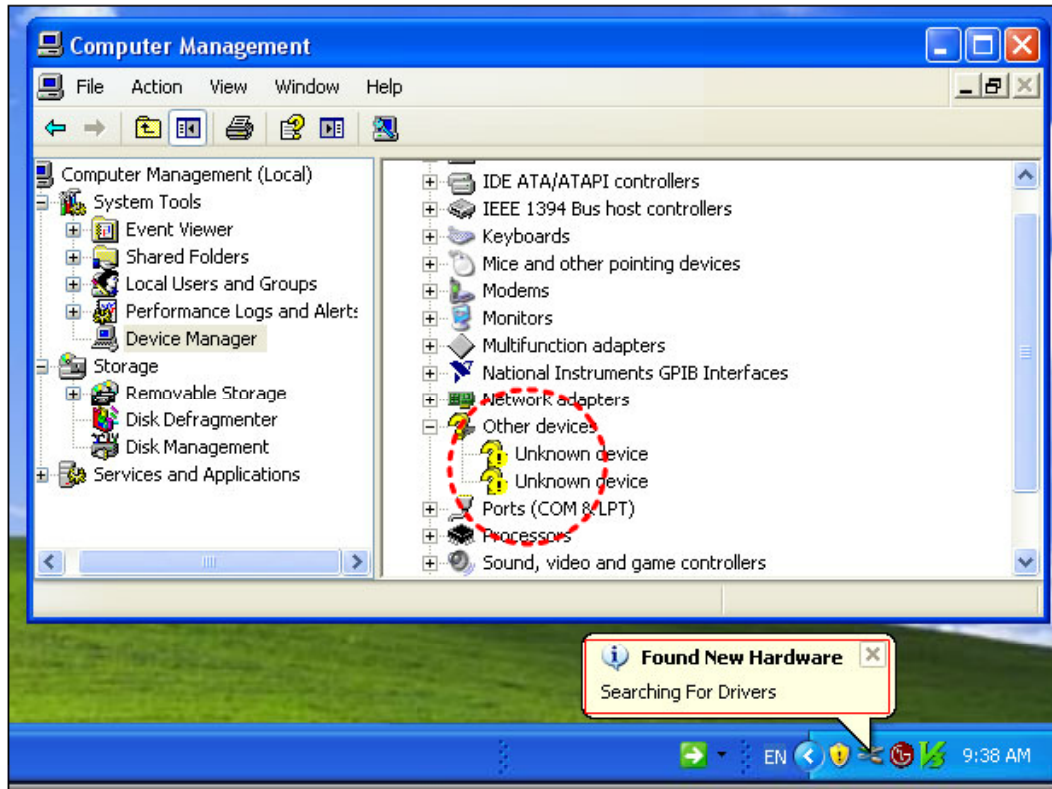


## 5. DOWNLOAD

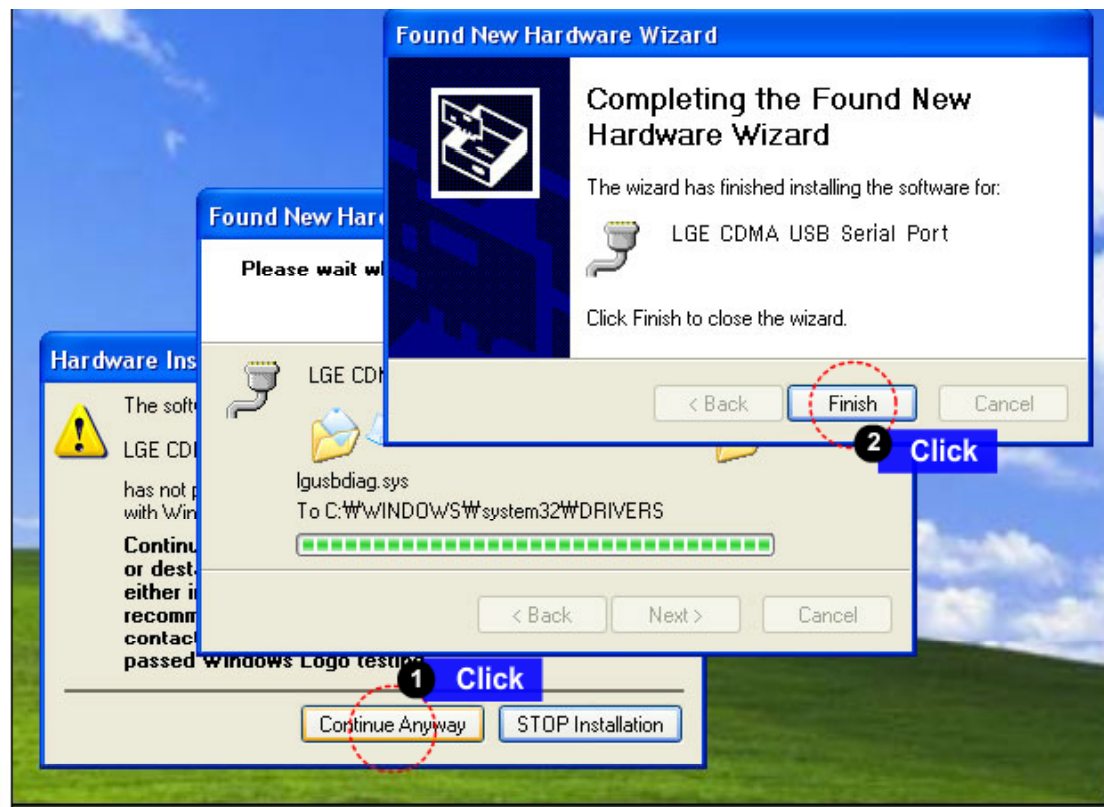
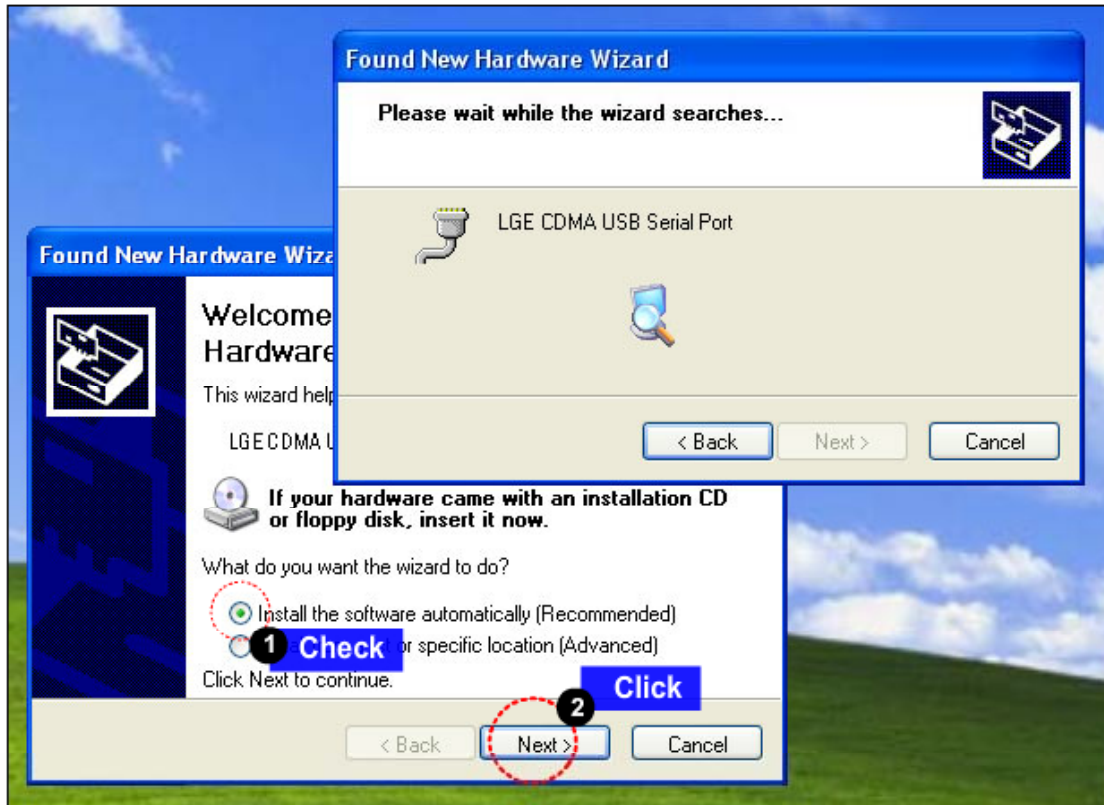




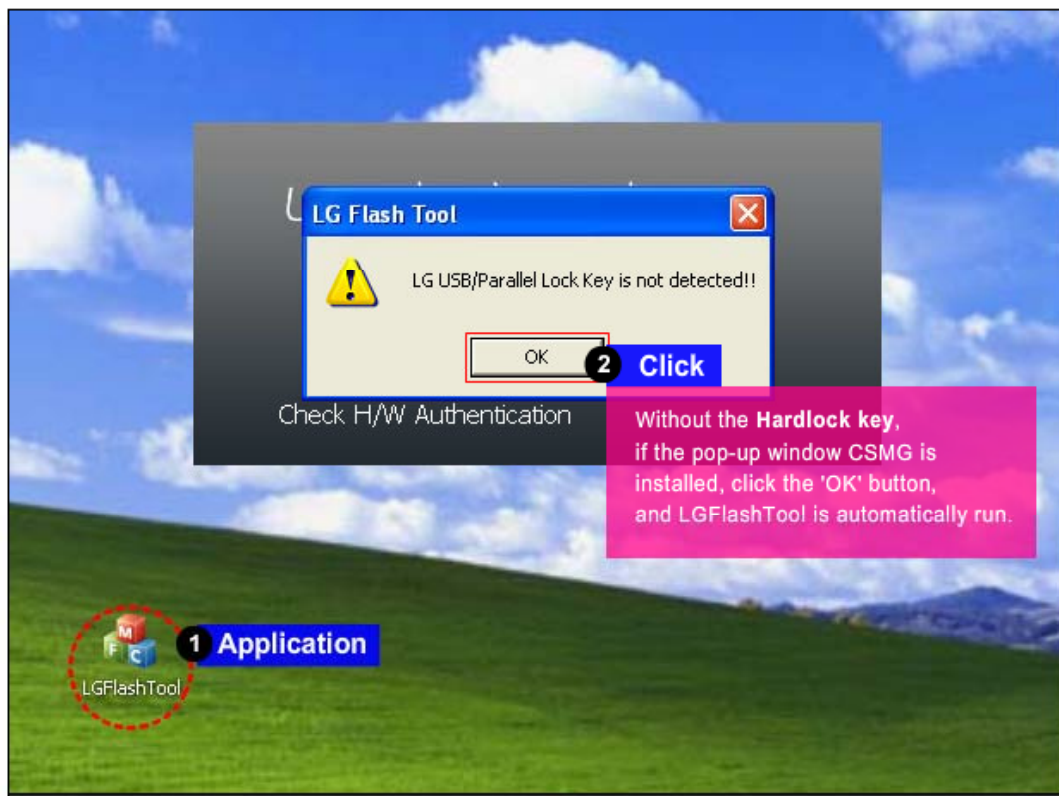
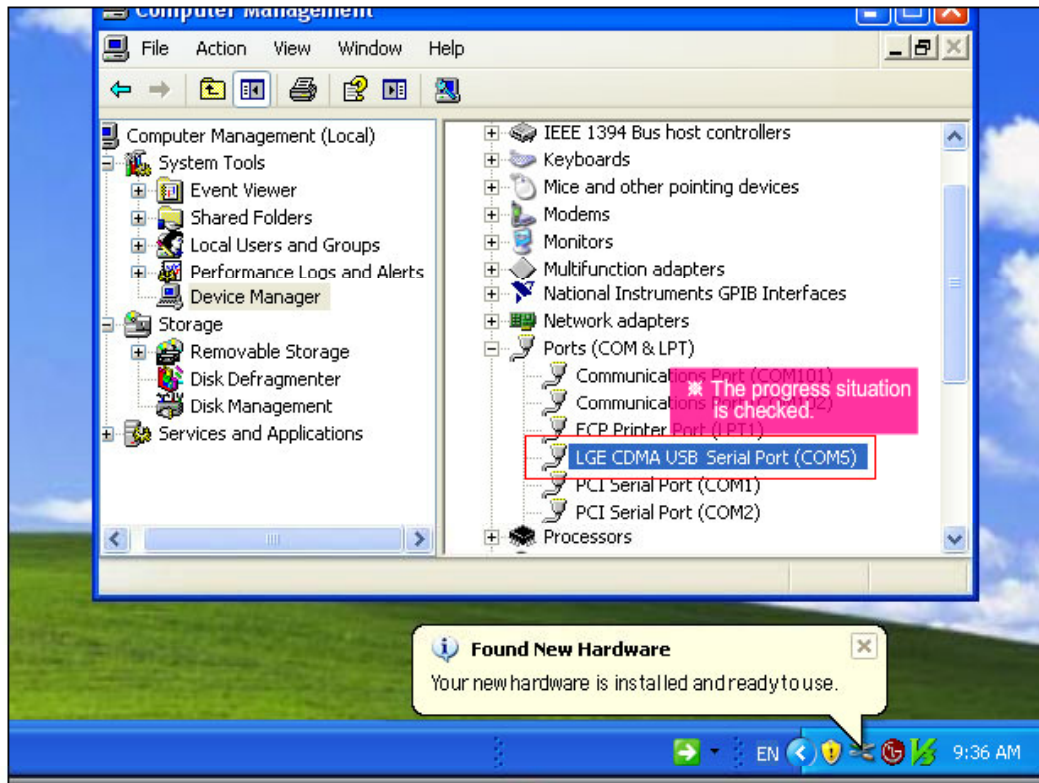
## 5. DOWNLOAD



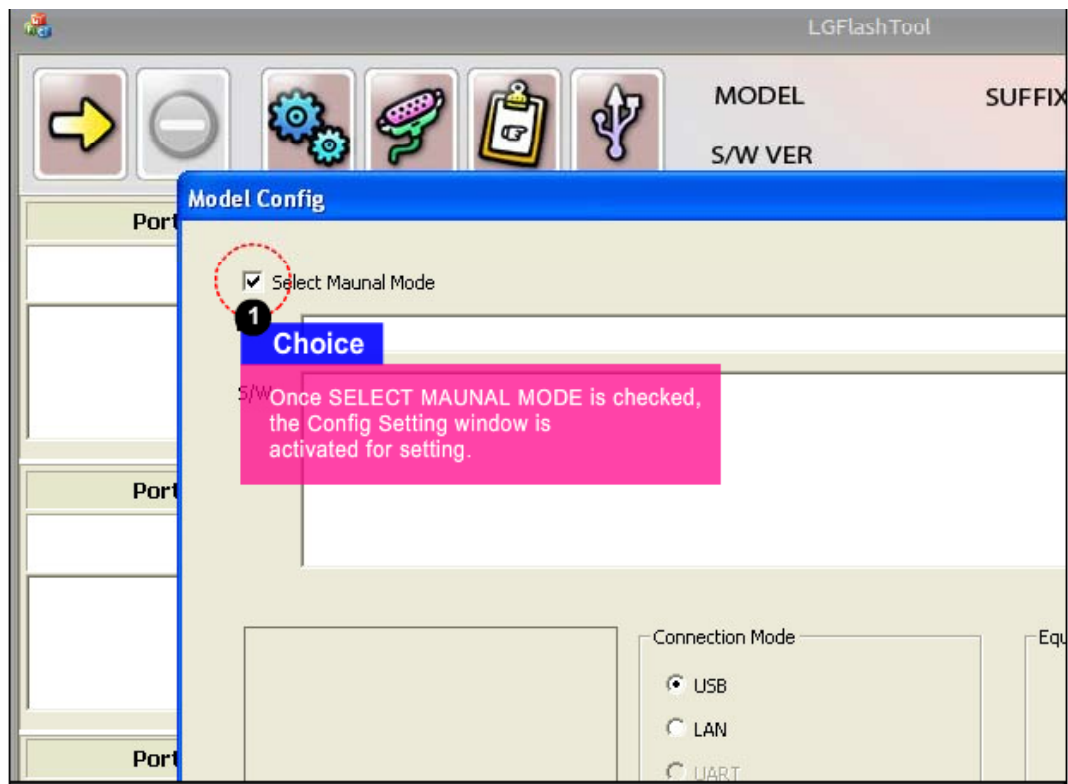
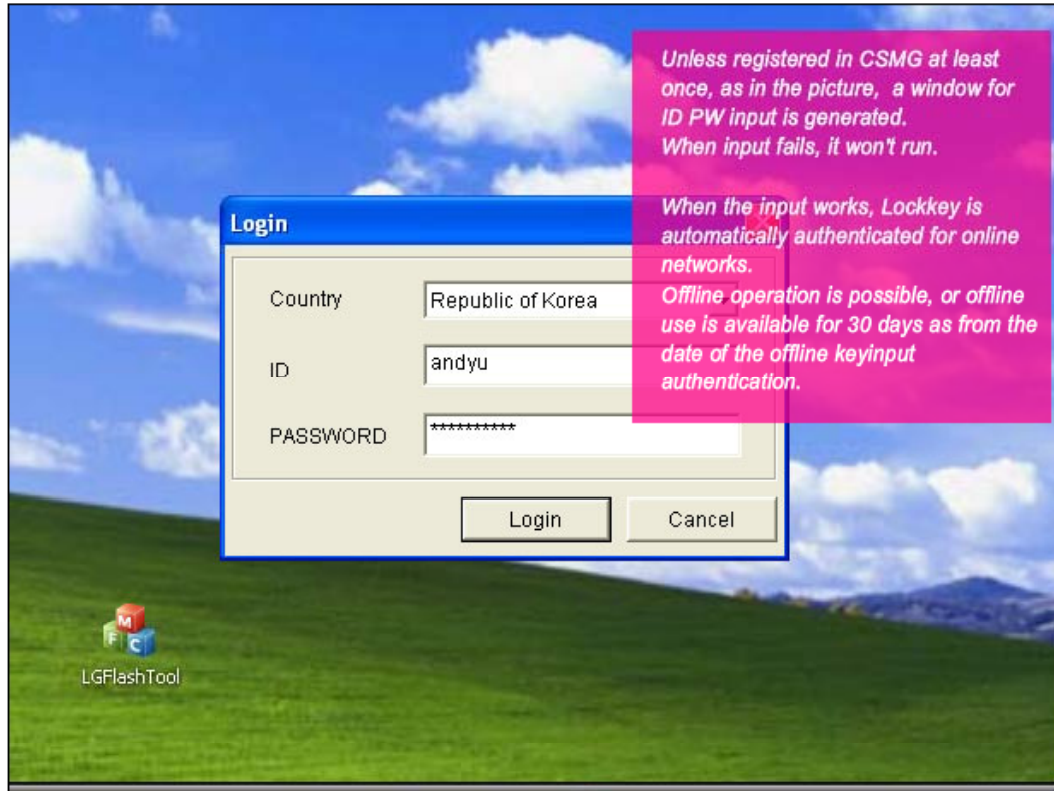




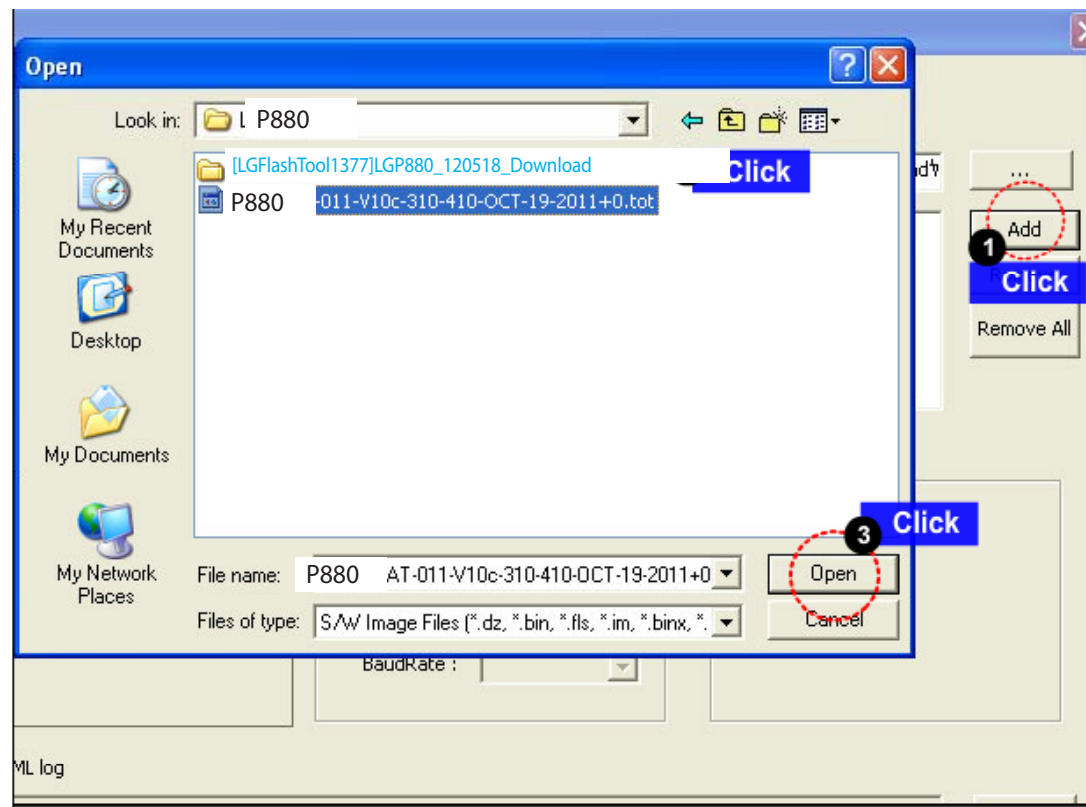
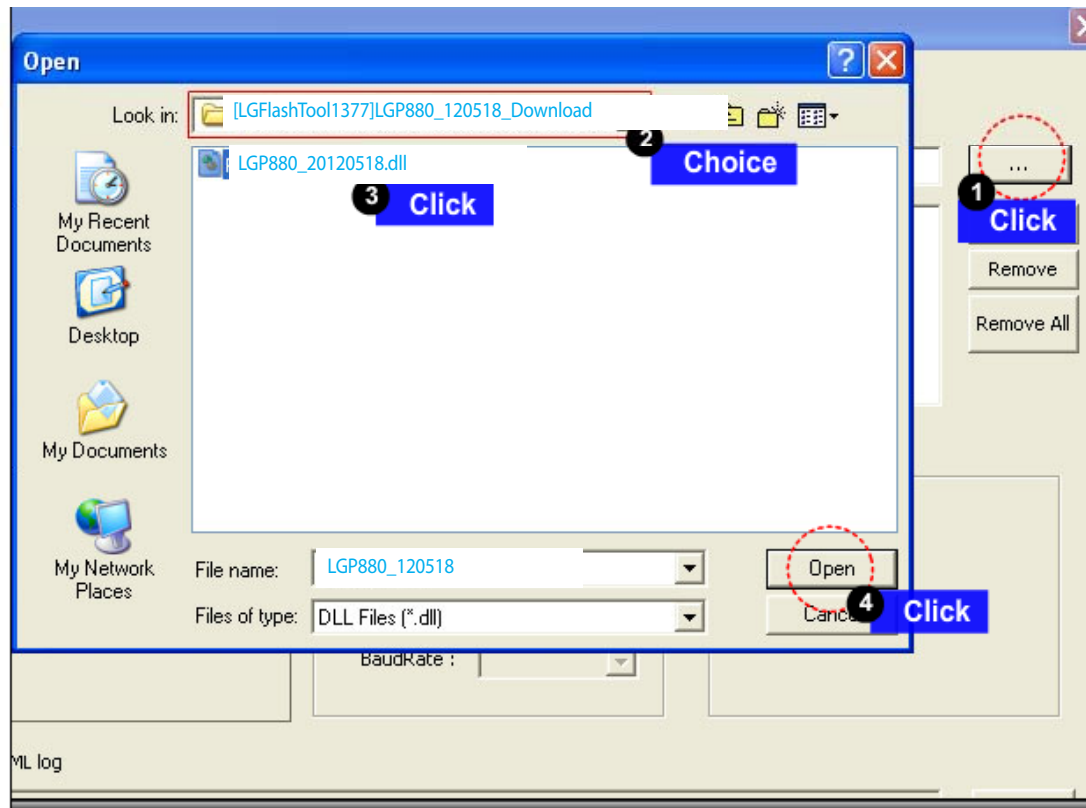
## 5. DOWNLOAD



## 5. DOWNLOAD

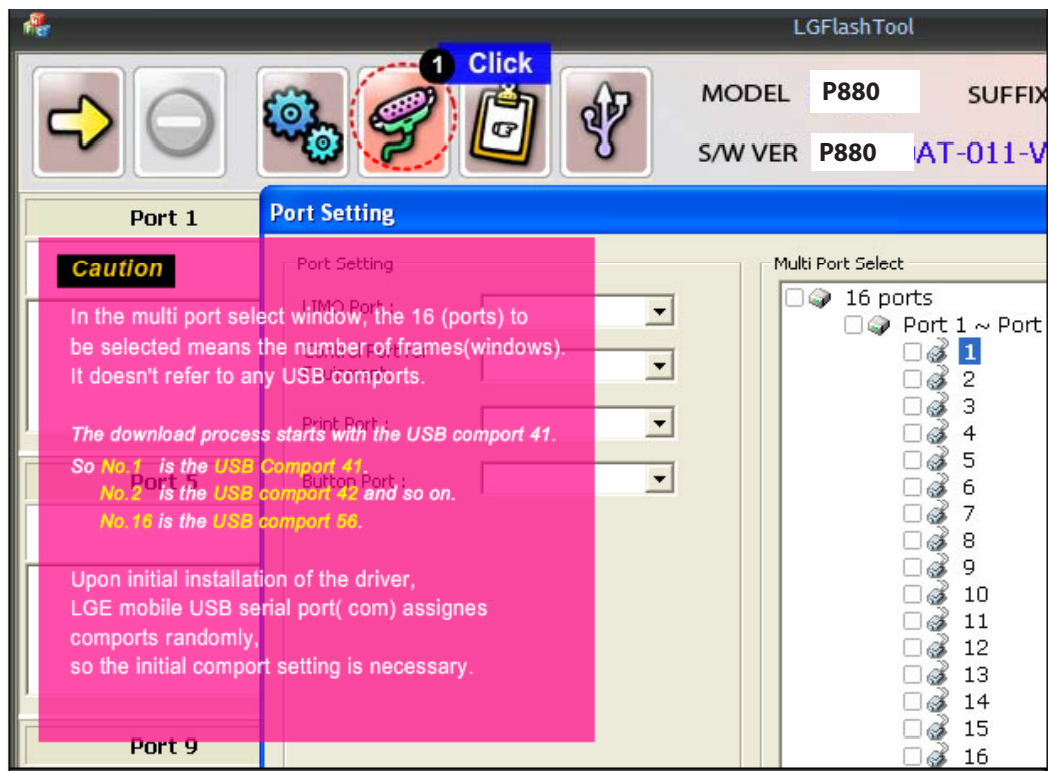
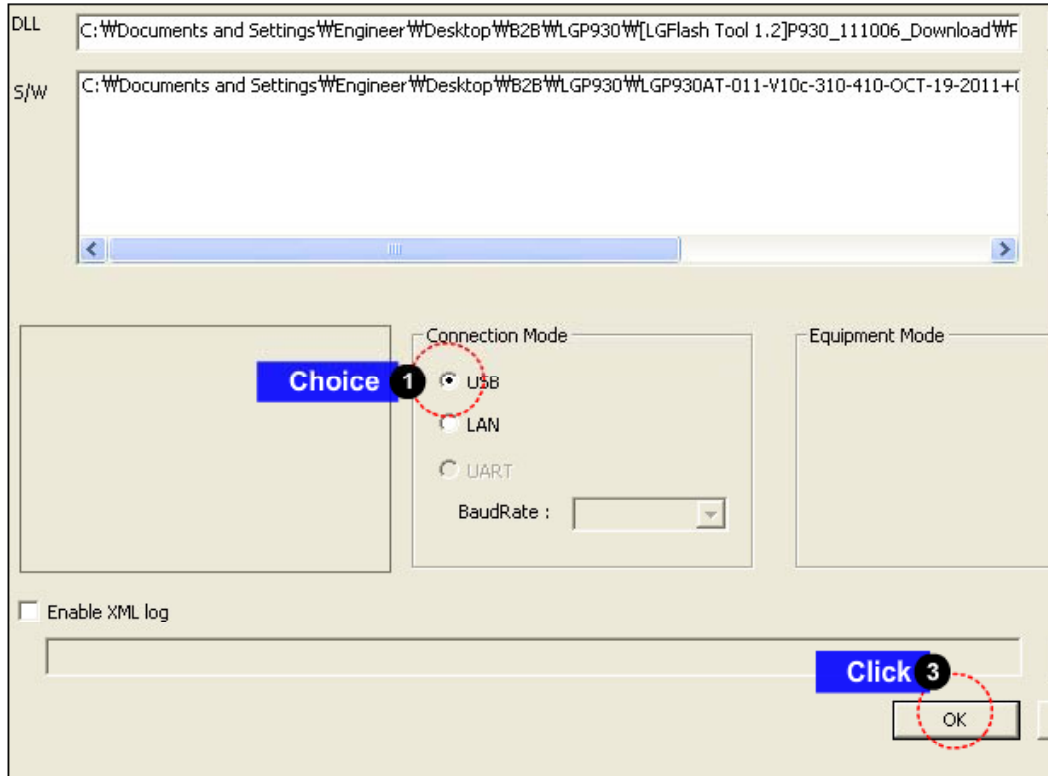


## 5. DOWNLOAD

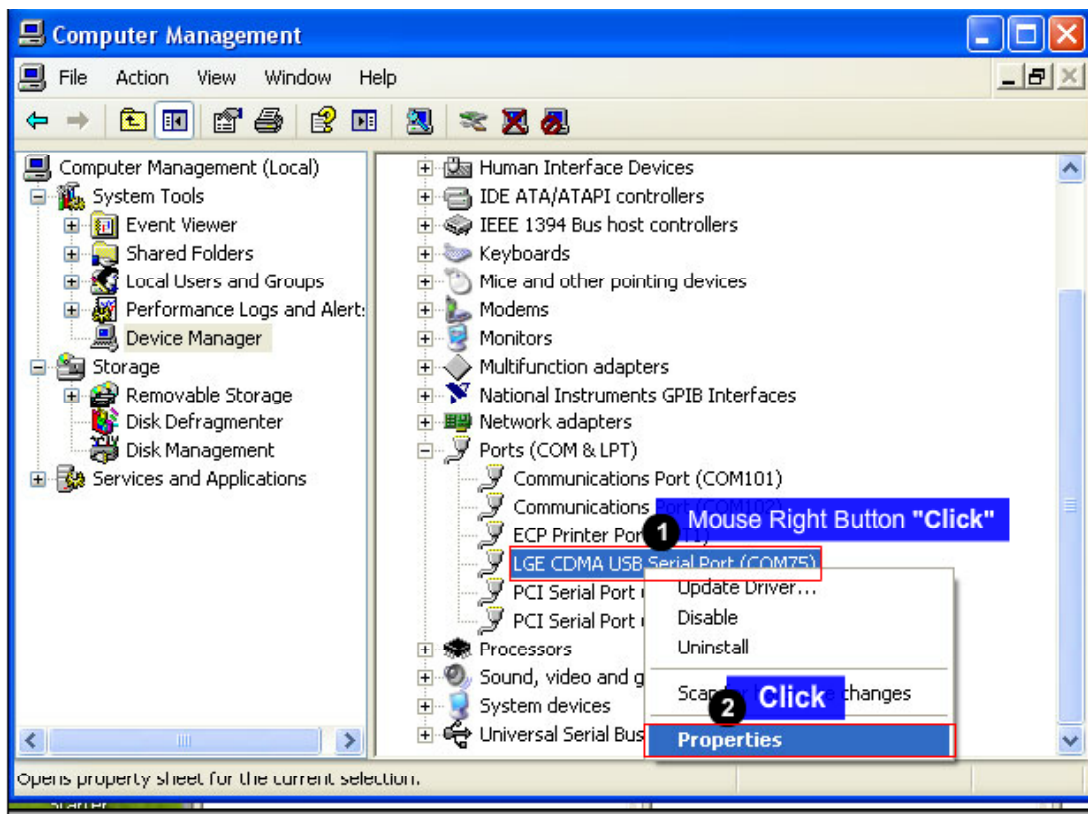
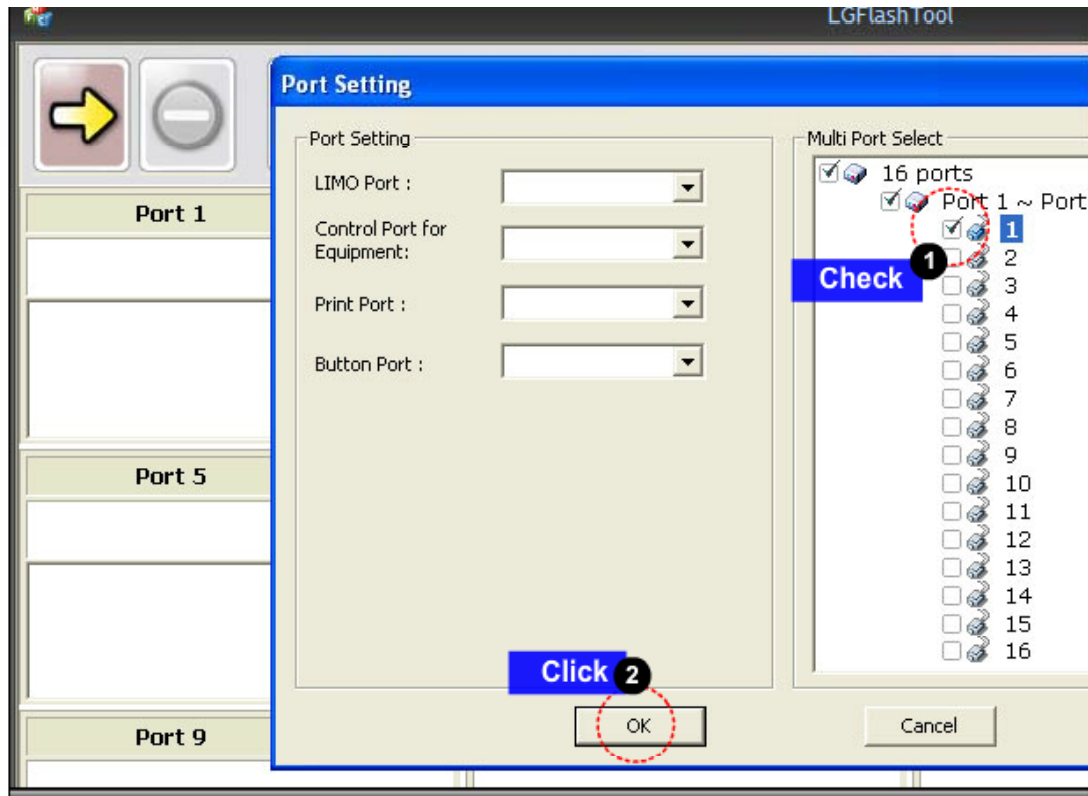




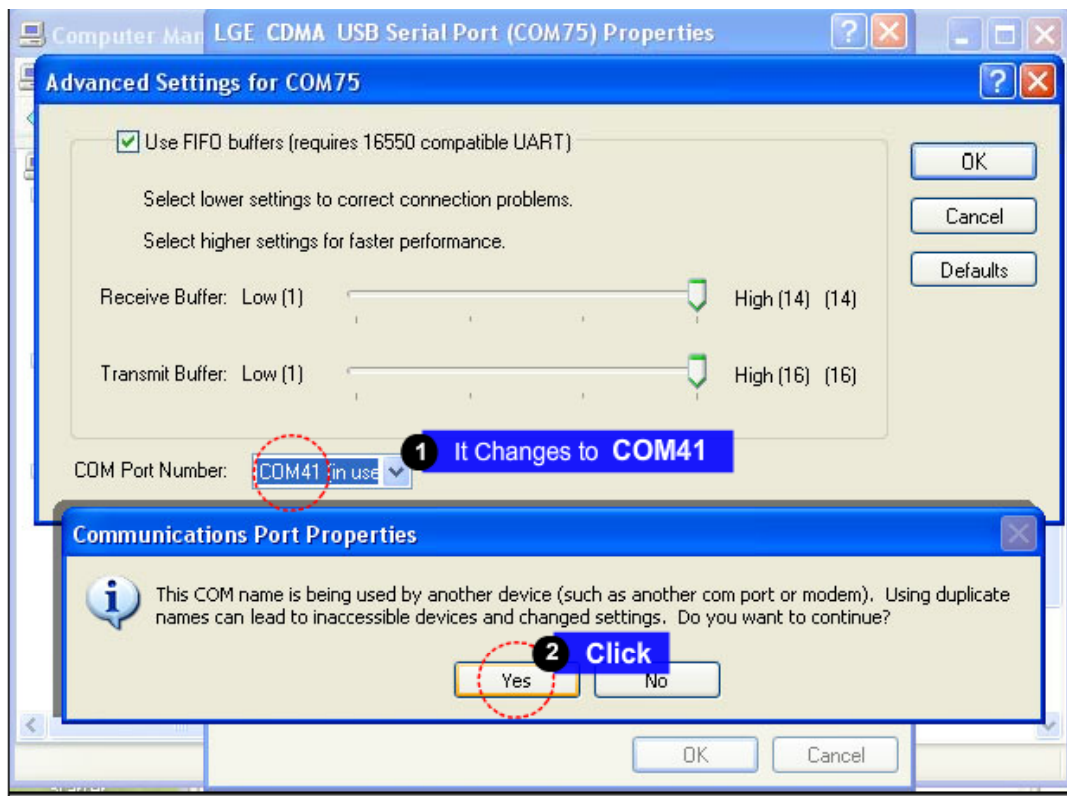
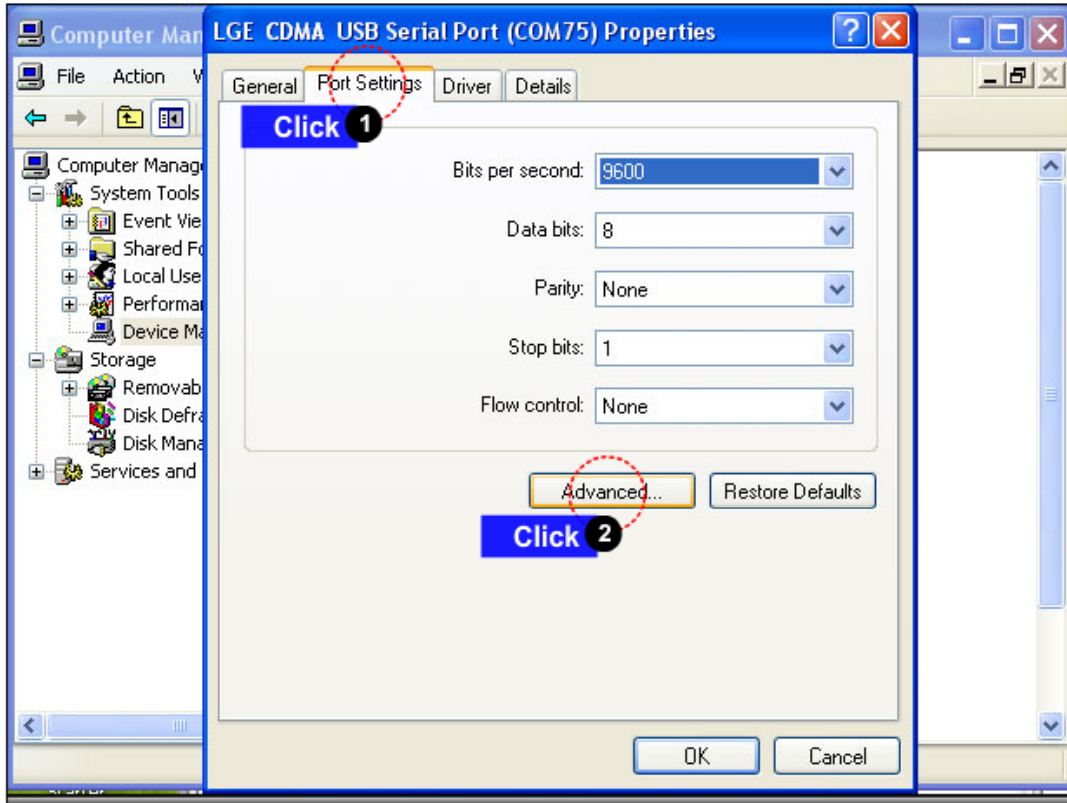
## 5. DOWNLOAD



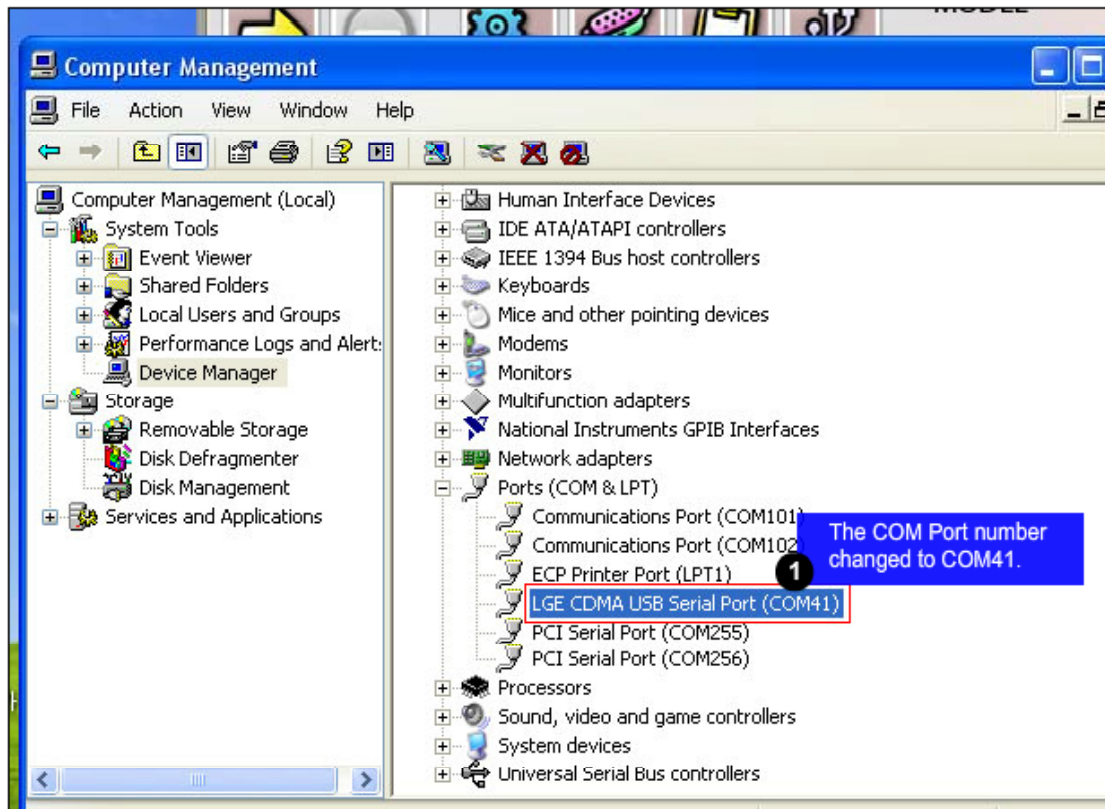
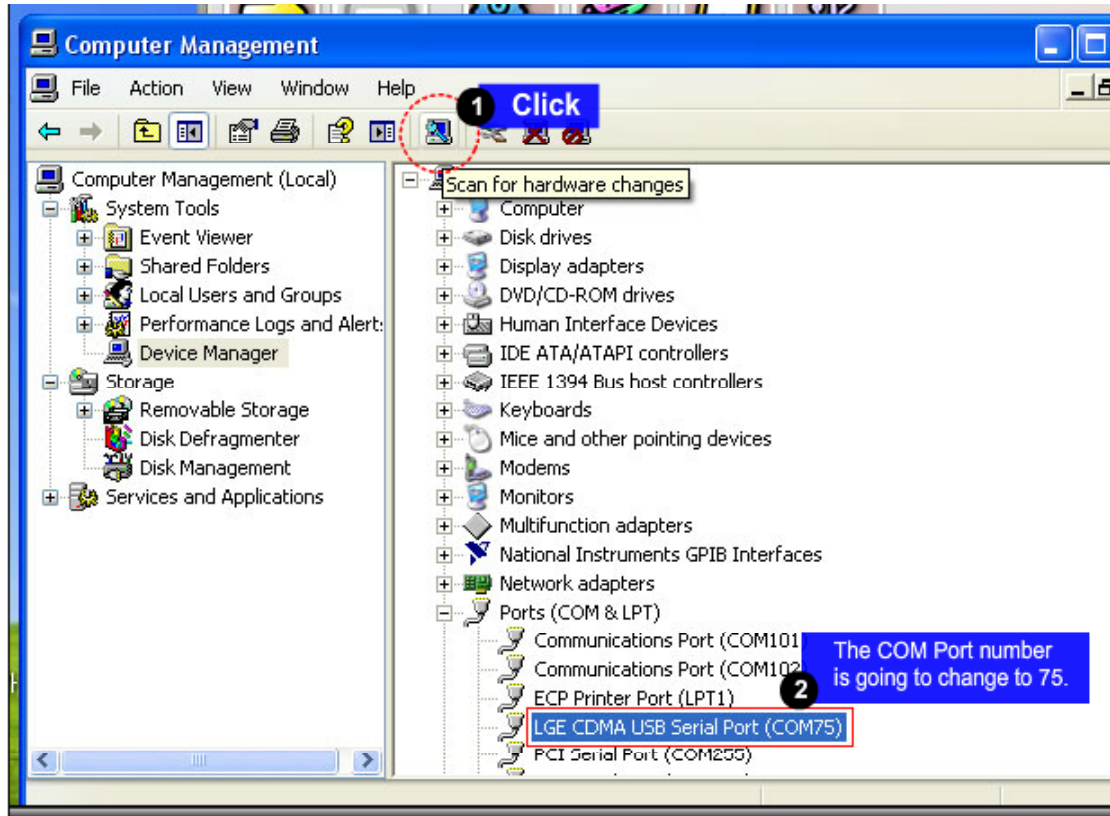
## 5. DOWNLOAD



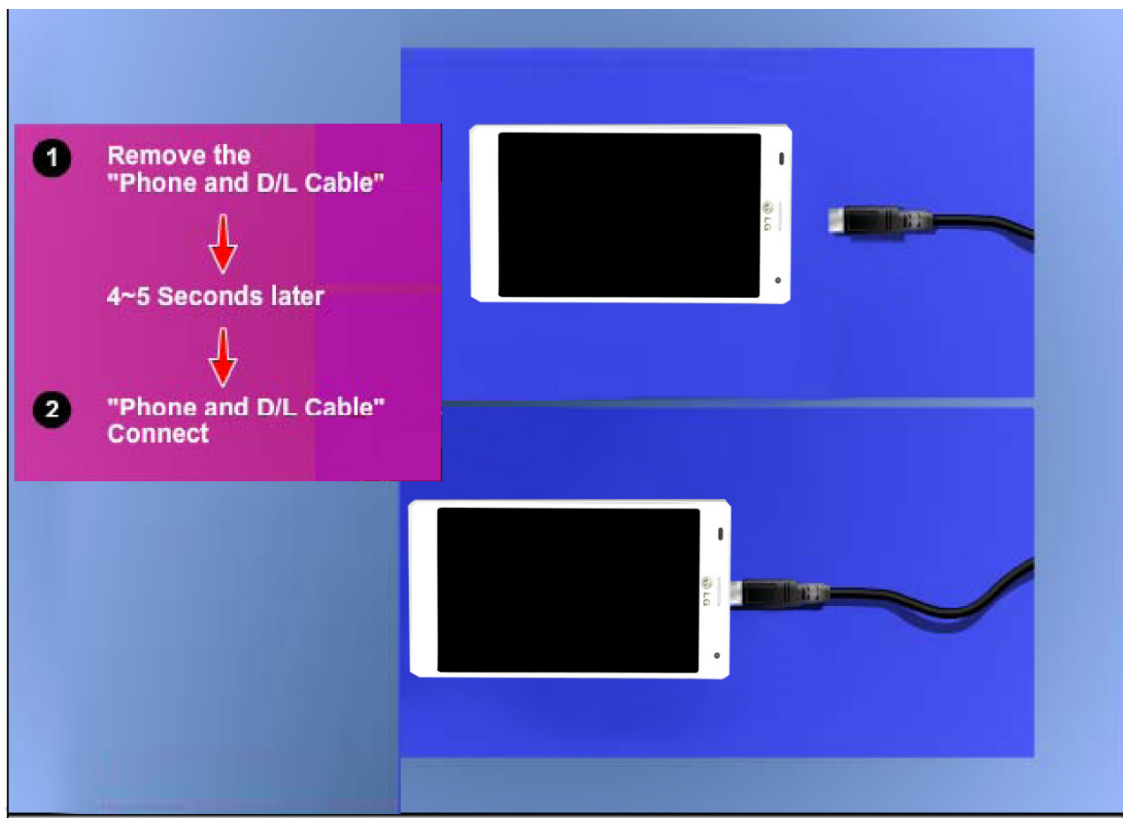




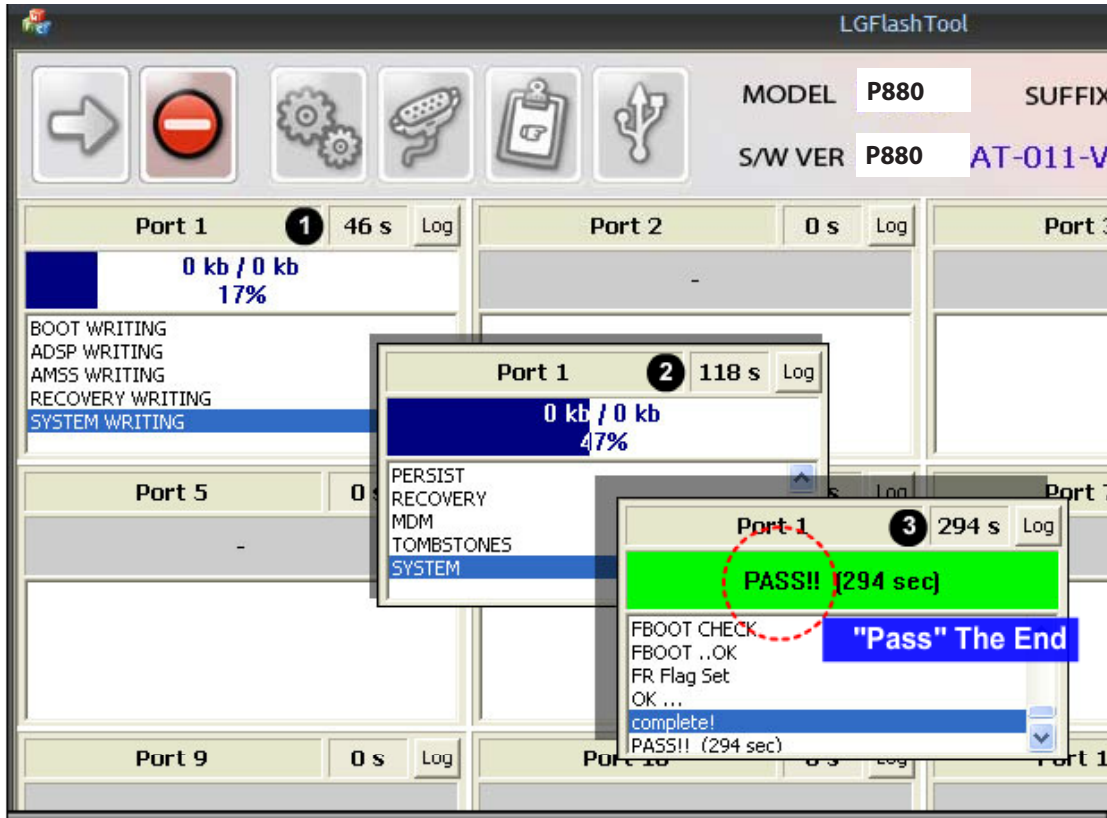
## 5. DOWNLOAD



## 5. DOWNLOAD

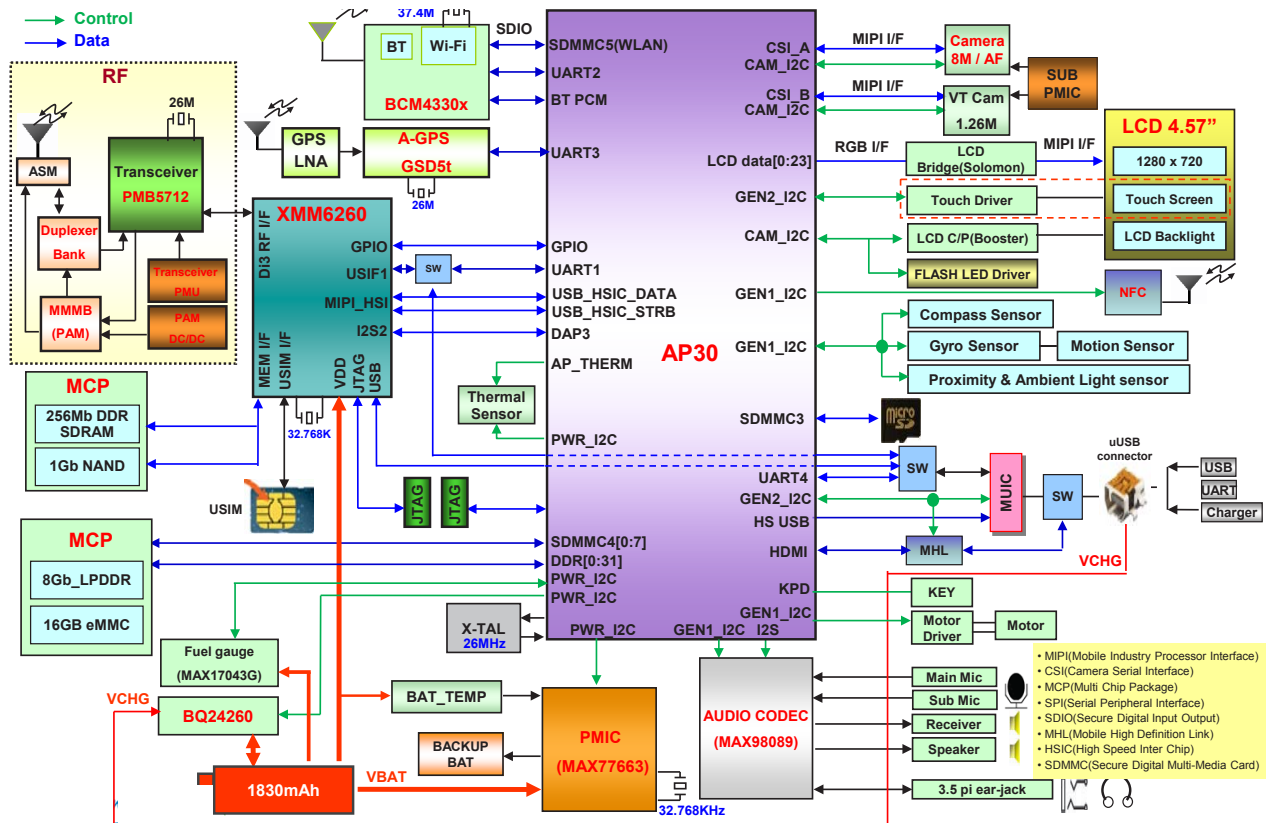


## 5. DOWNLOAD



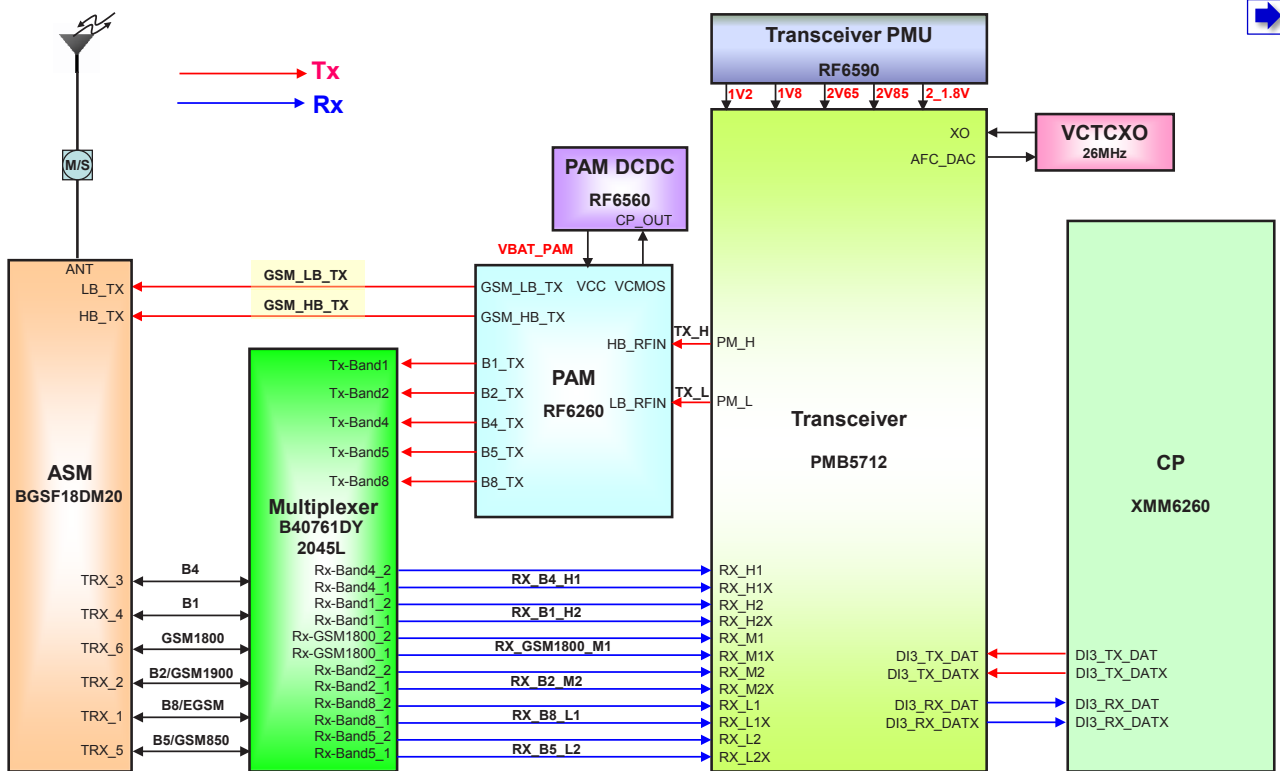
## 6.BLOCK DIAGRAM

Total Block Diagram(EU)



## 6. BLOCK DIAGRAM

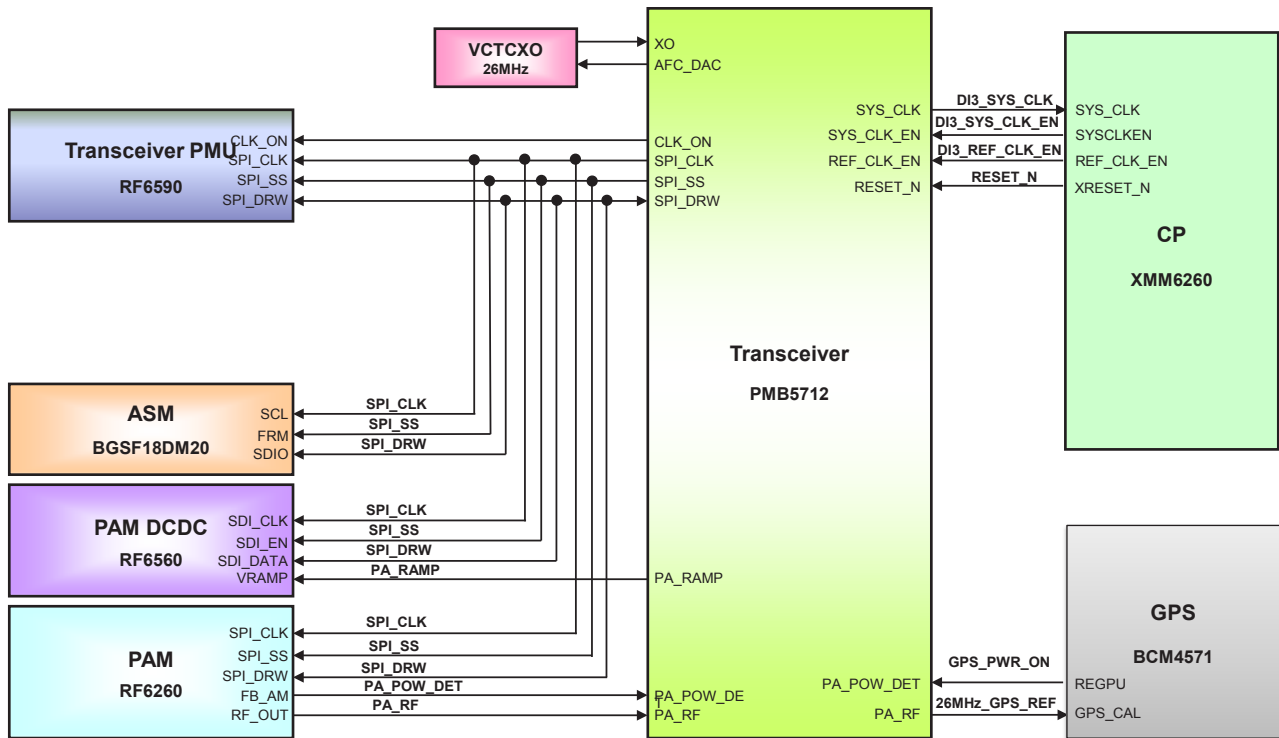
RF Block Diagram





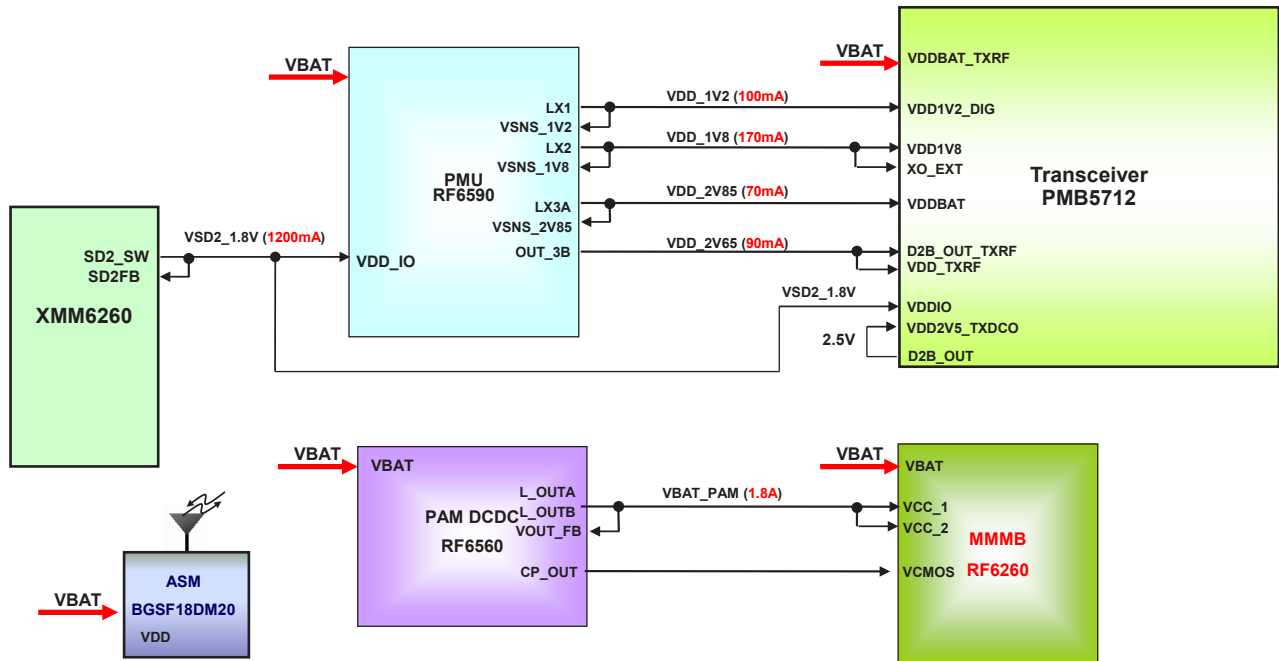
## 6. BLOCK DIAGRAM

RF Block Diagram ; Control signal and clocks



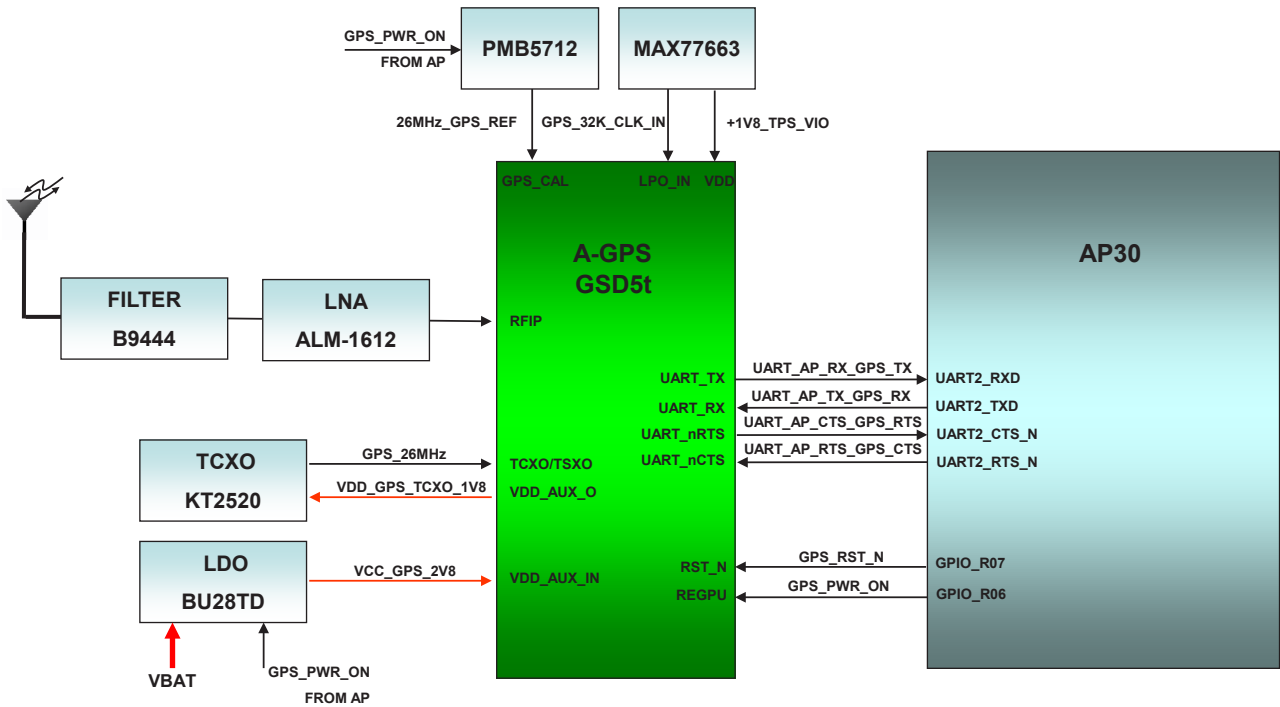
## 6. BLOCK DIAGRAM

### RF Block Diagram ; Power



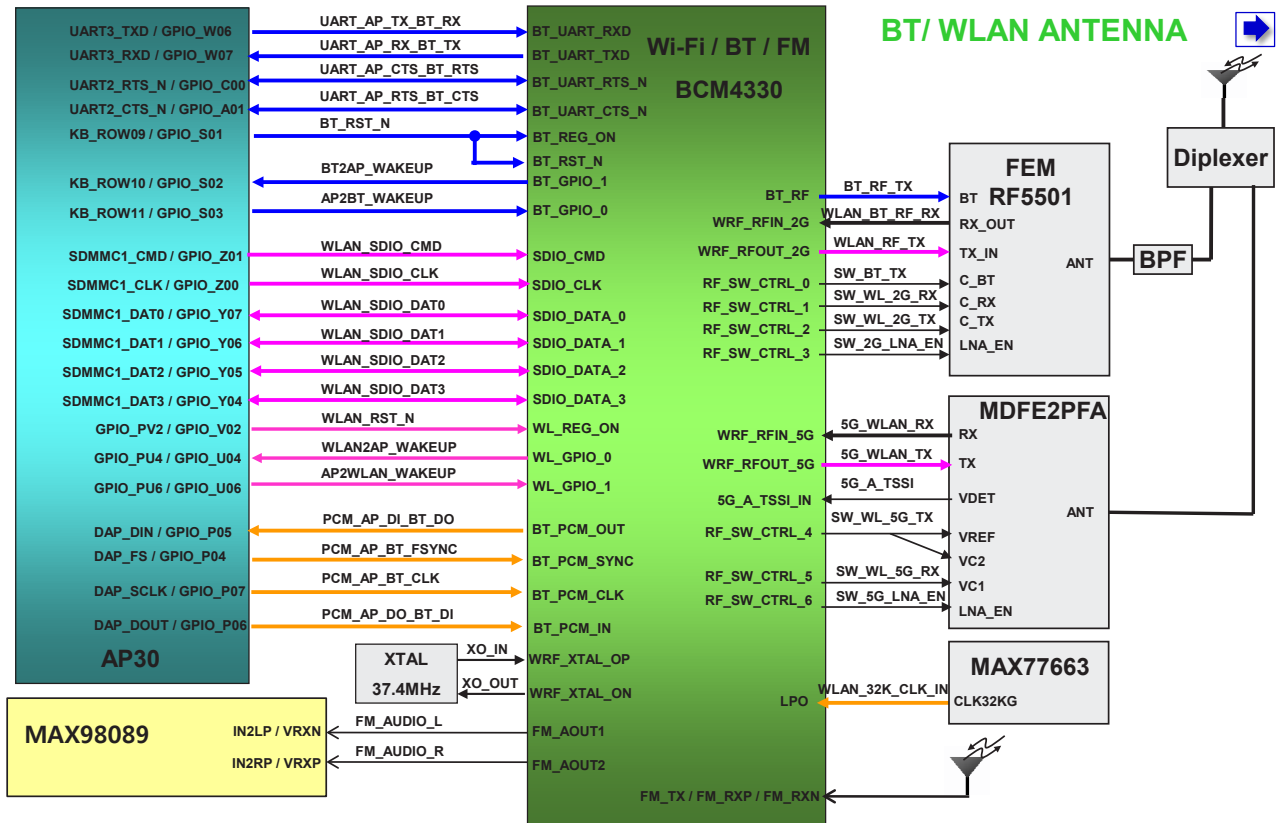
## 6. BLOCK DIAGRAM

### Connectivity; GPS



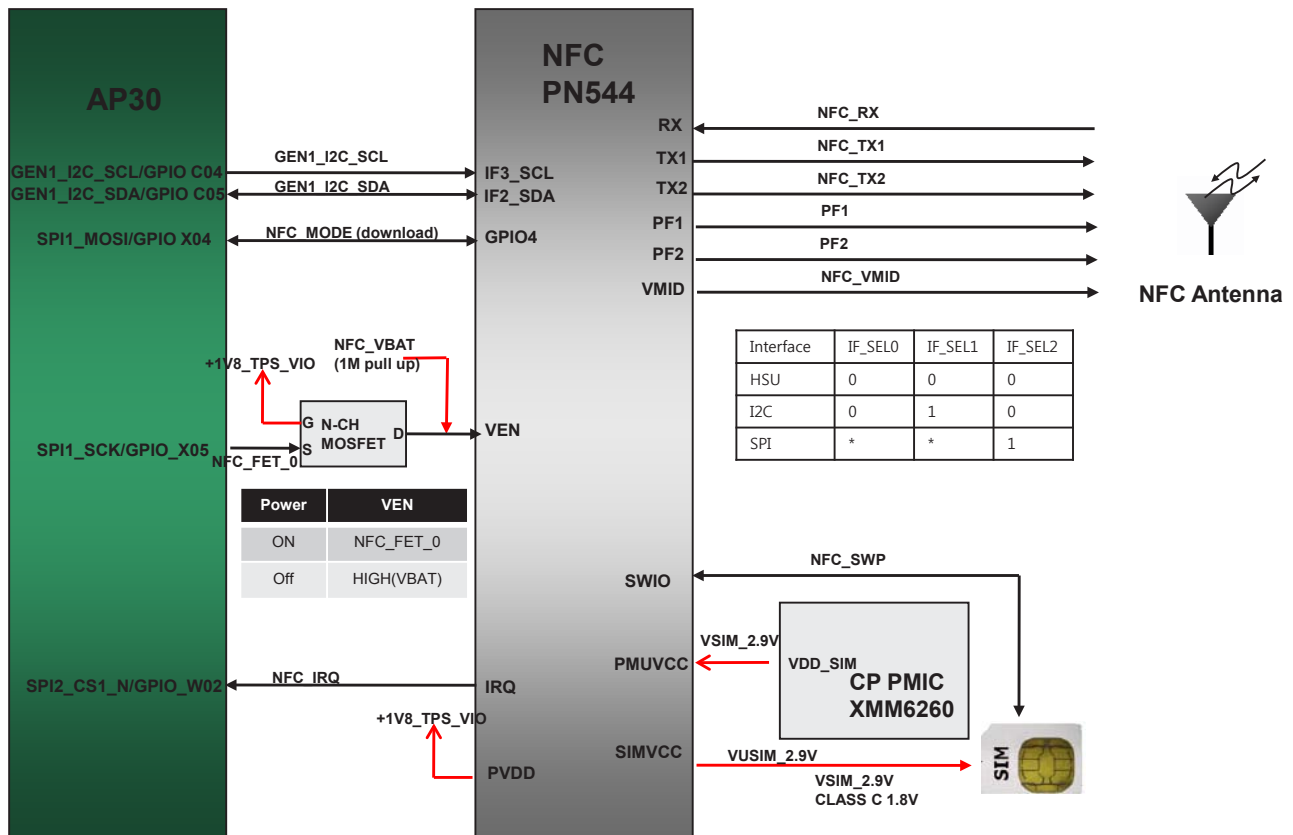
## 6. BLOCK DIAGRAM

### Connectivity ; BLUETOOTH & Wi-Fi



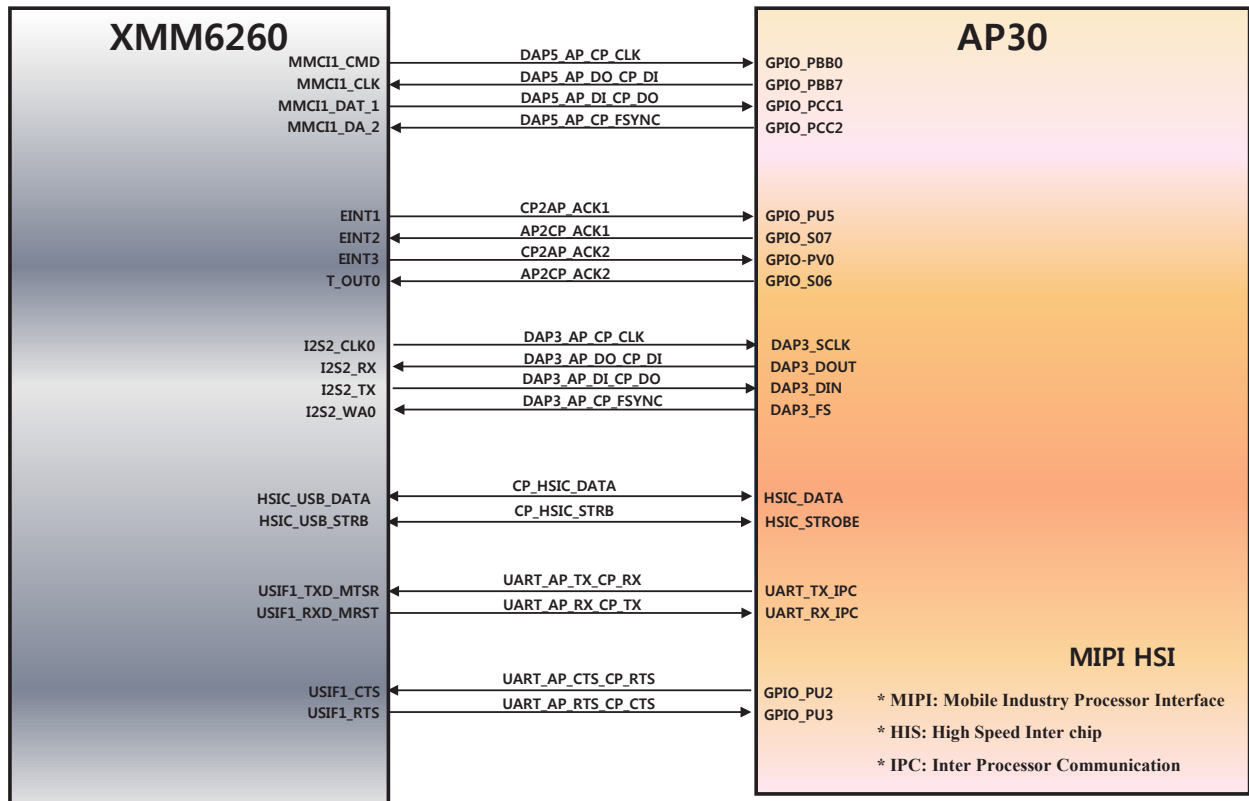
## 6. BLOCK DIAGRAM

### NFC



## 6. BLOCK DIAGRAM

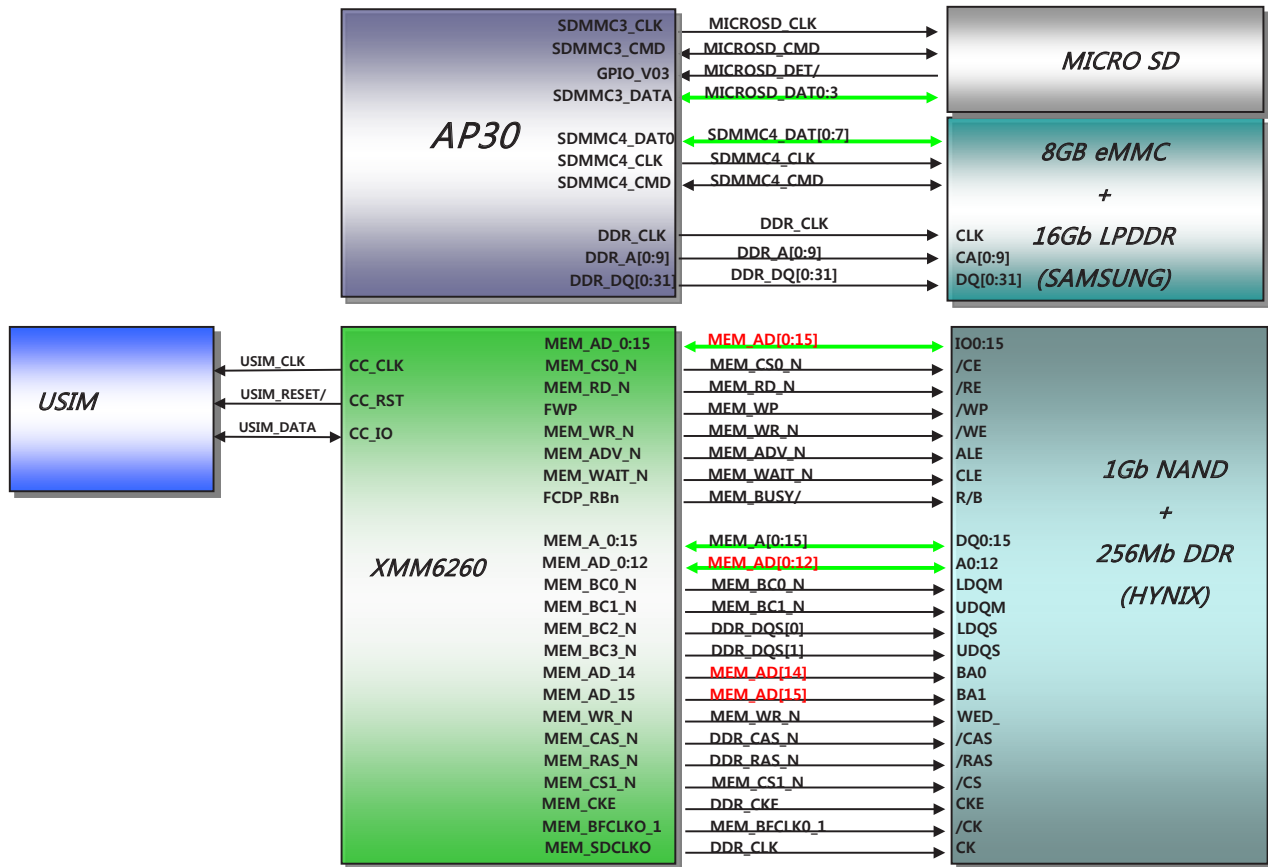
### XMM6260 – AP30 Interface / Control signal





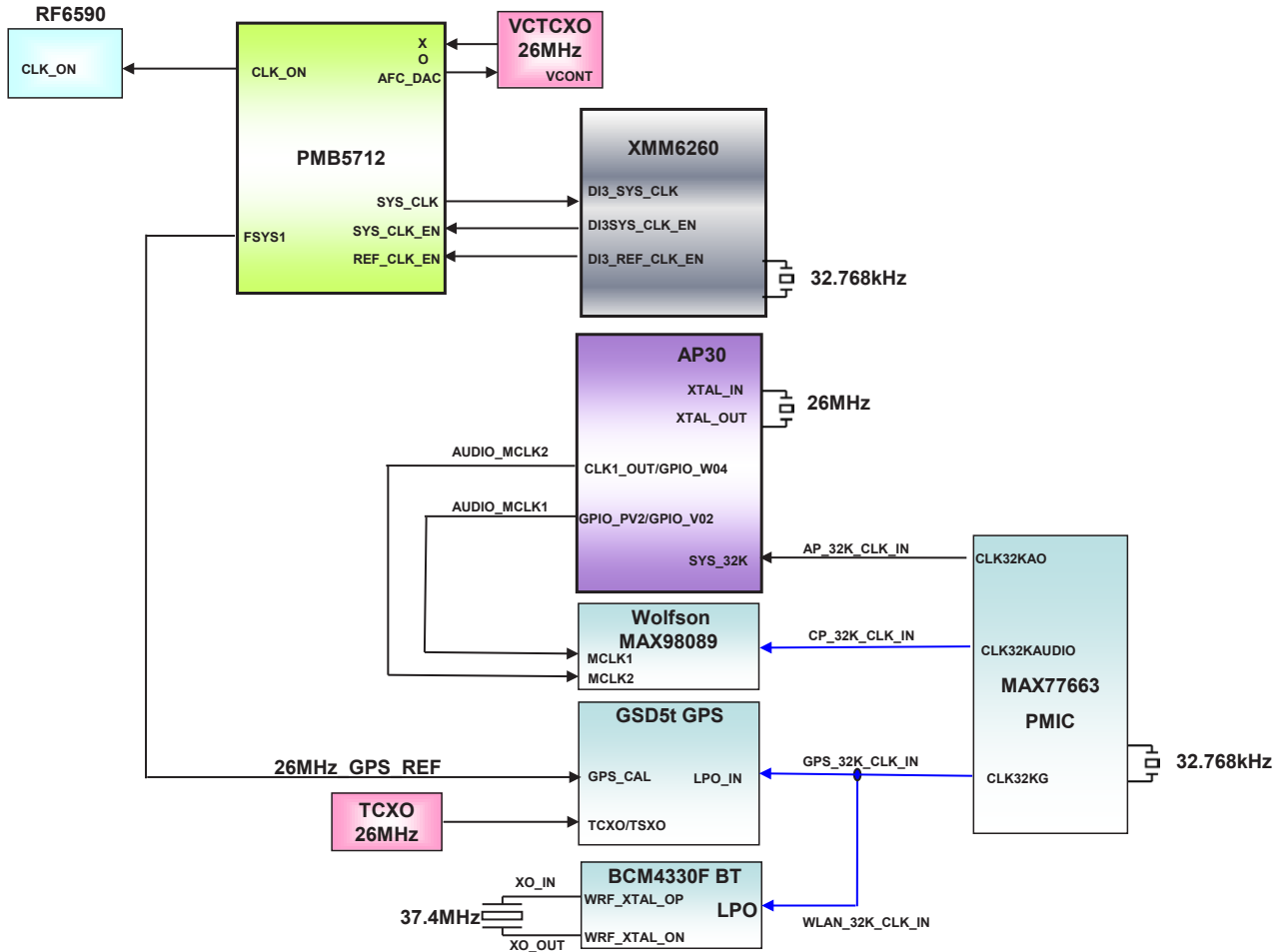
## 6. BLOCK DIAGRAM

Memory – XMM6260, USIM, MCP Block Diagram



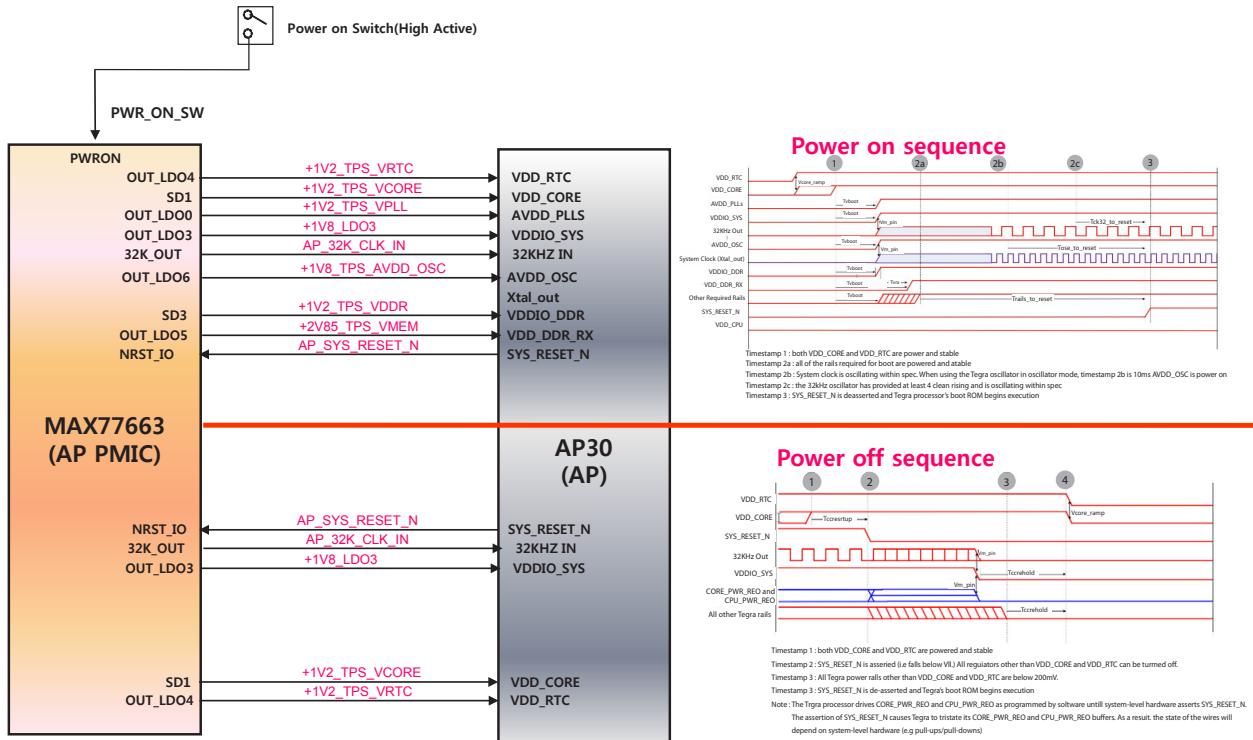
## 6. BLOCK DIAGRAM

### System Clock



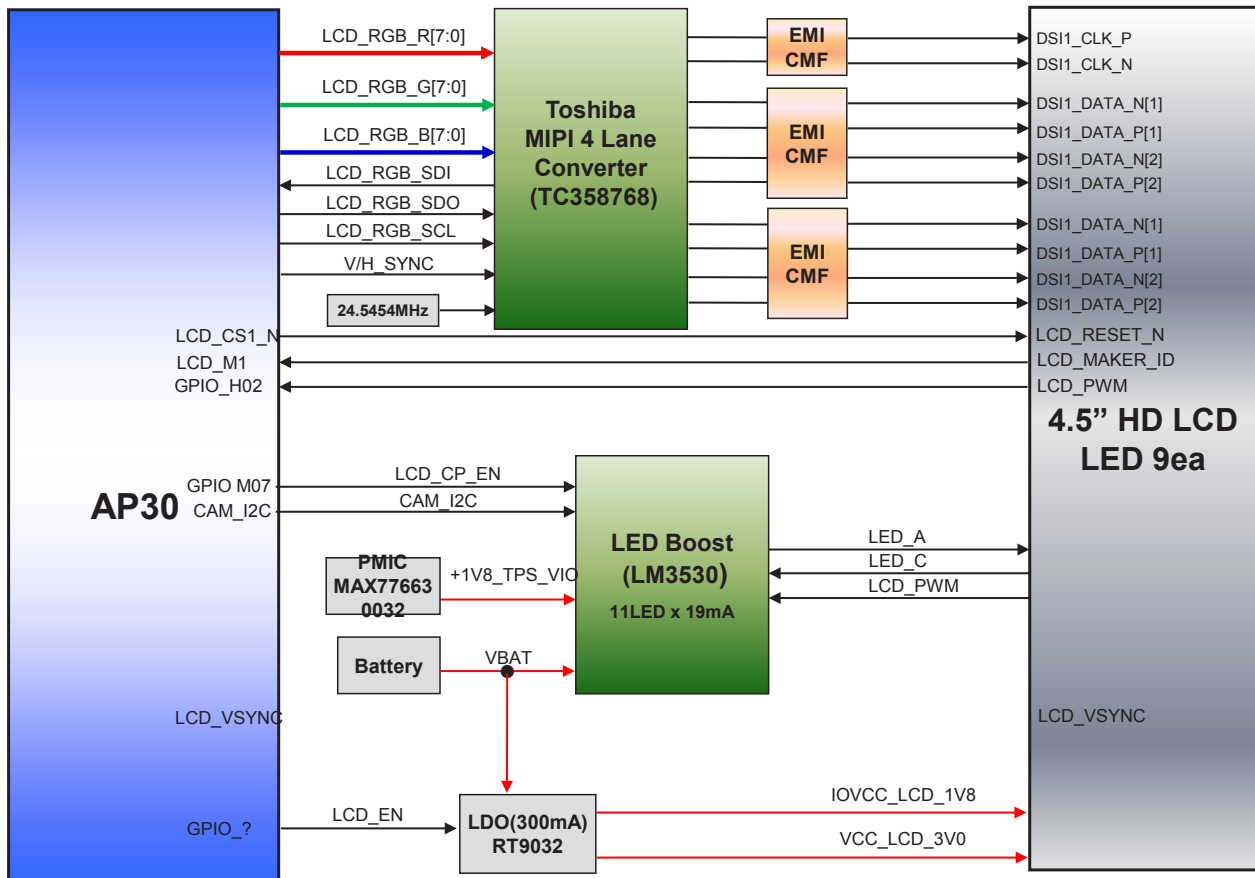
## 6. BLOCK DIAGRAM

### System Power On/Off



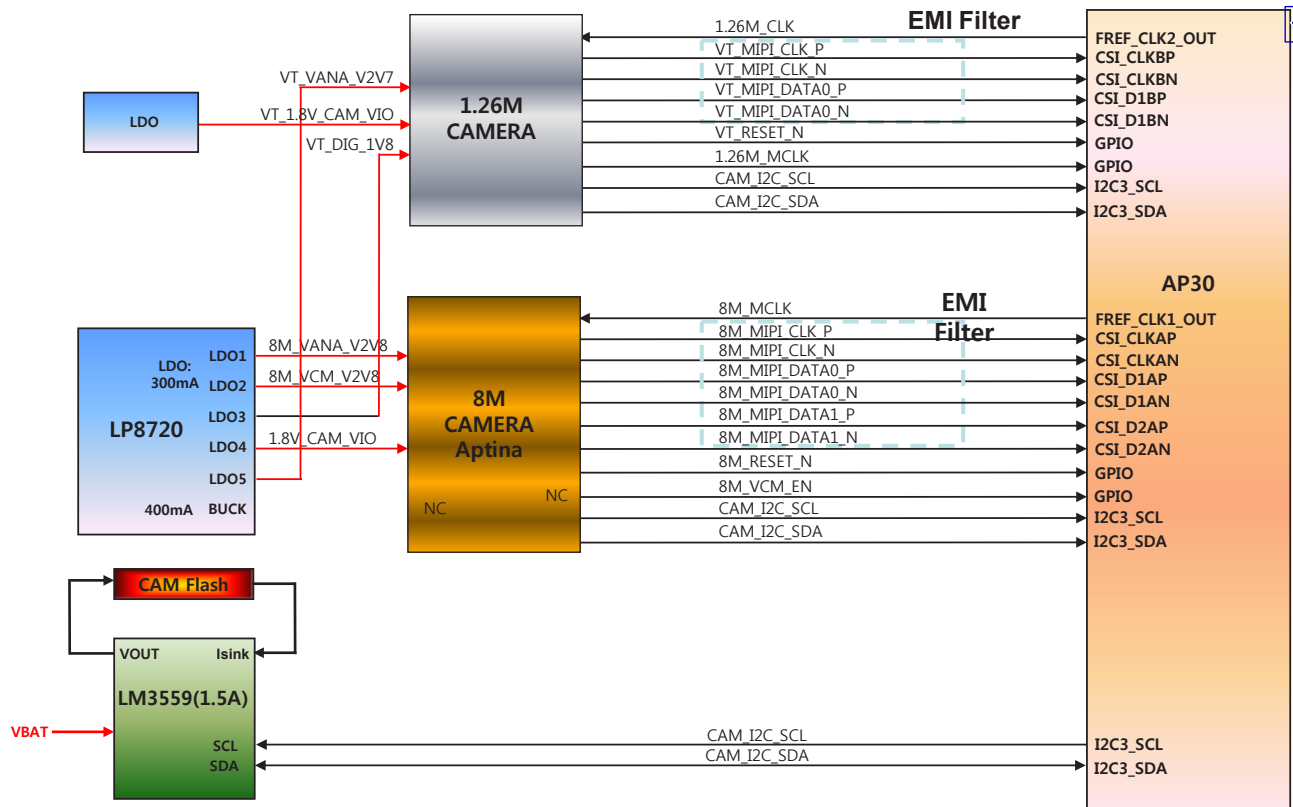
## 6. BLOCK DIAGRAM

LCD Block Diagram



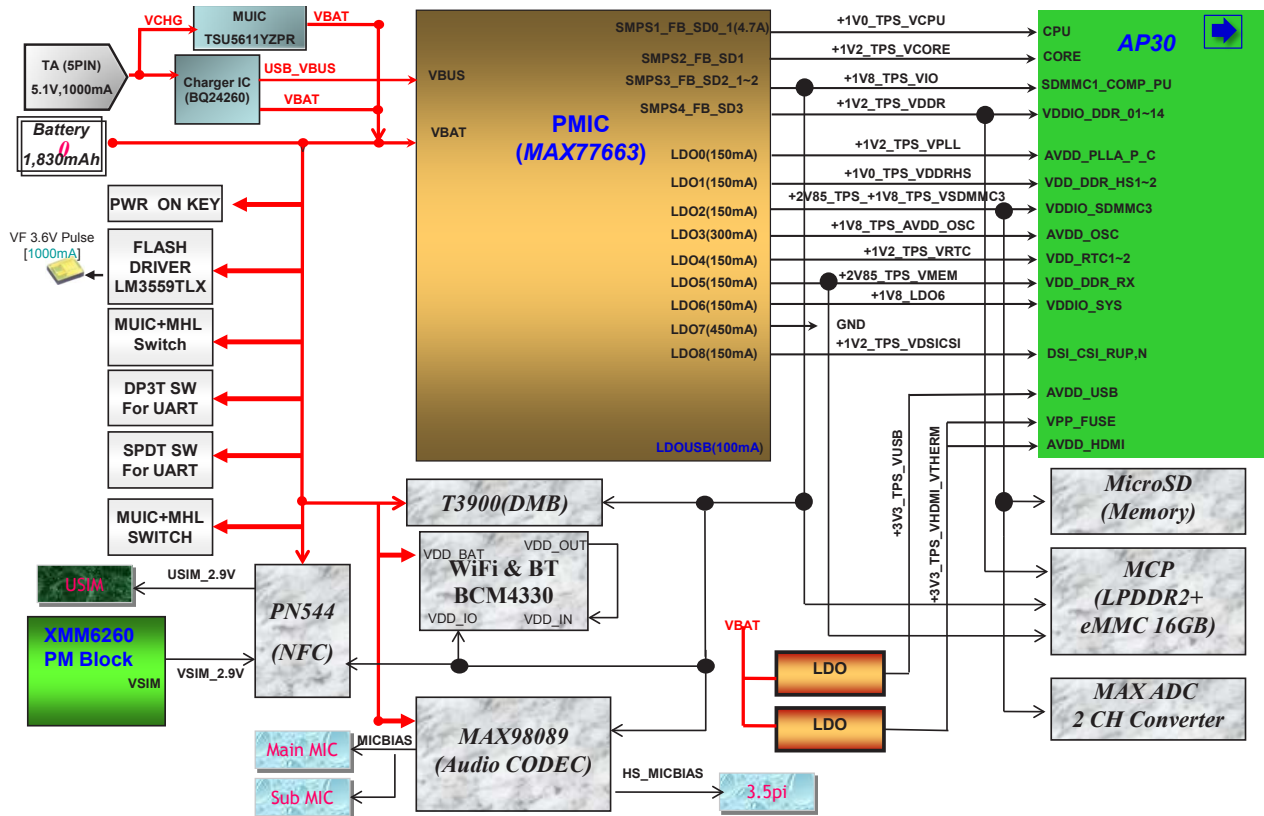
## 6. BLOCK DIAGRAM

CAMERA Block Diagram



## 6. BLOCK DIAGRAM

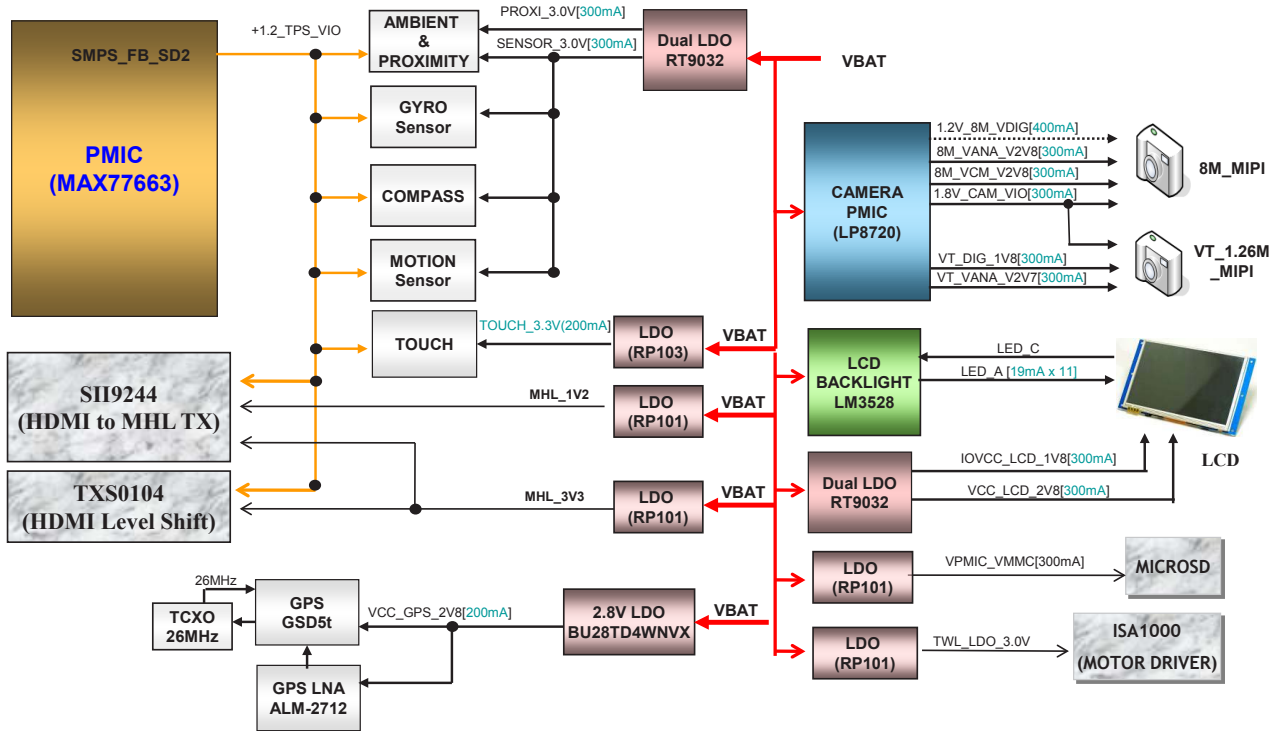
Power Block Diagram (PMIC : MAXIM) - 1





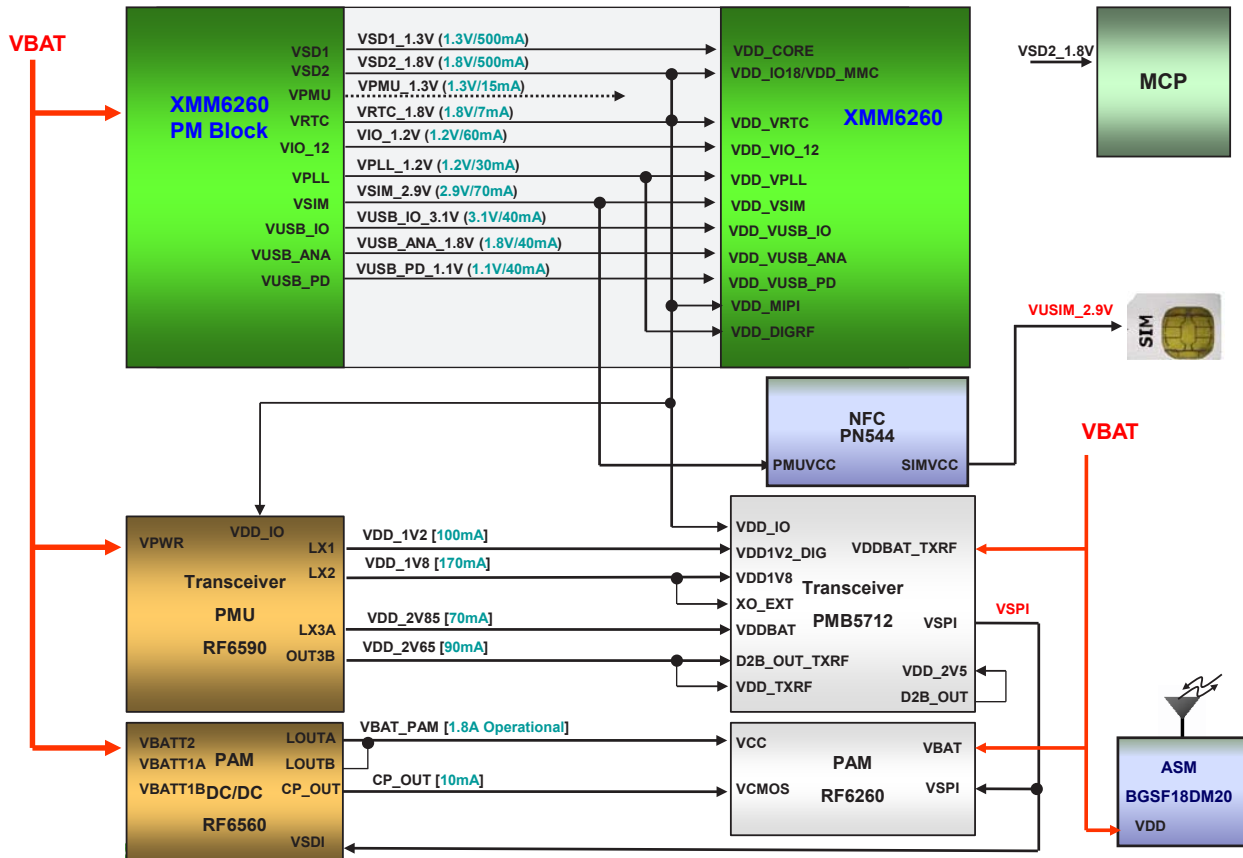
## 6. BLOCK DIAGRAM

Power Block Diagram (PMIC : MAXIM) - 2

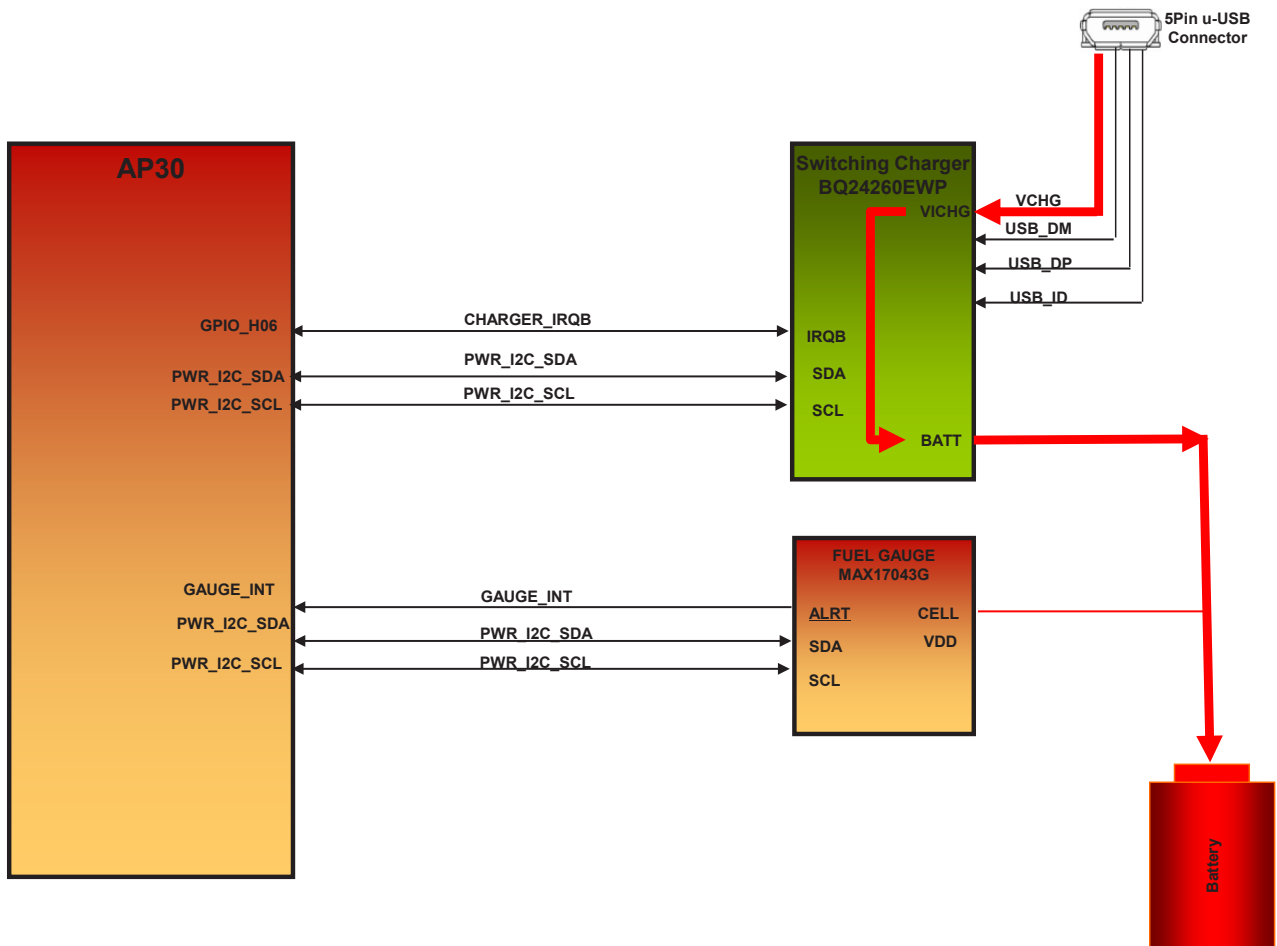


## 6. BLOCK DIAGRAM

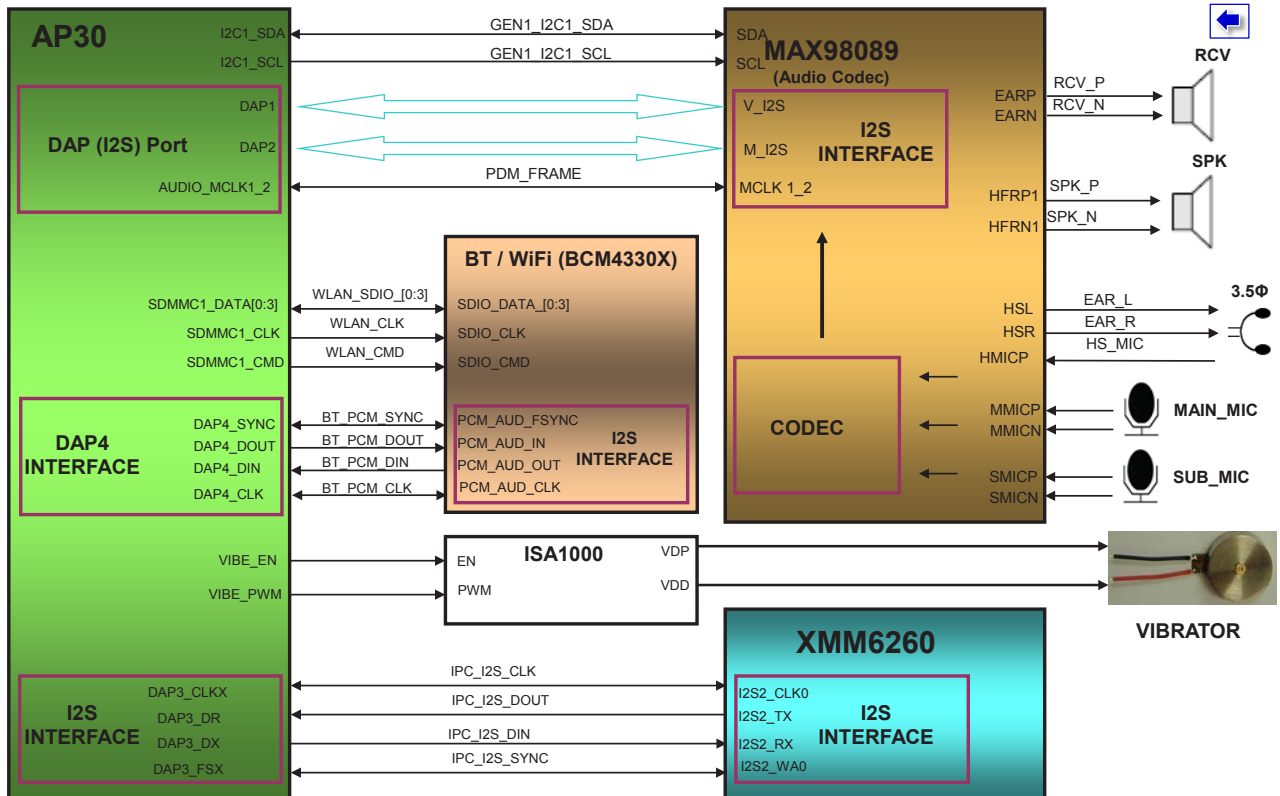
Power Block Diagram (XMM6260 & RF)



Charging Block Diagram

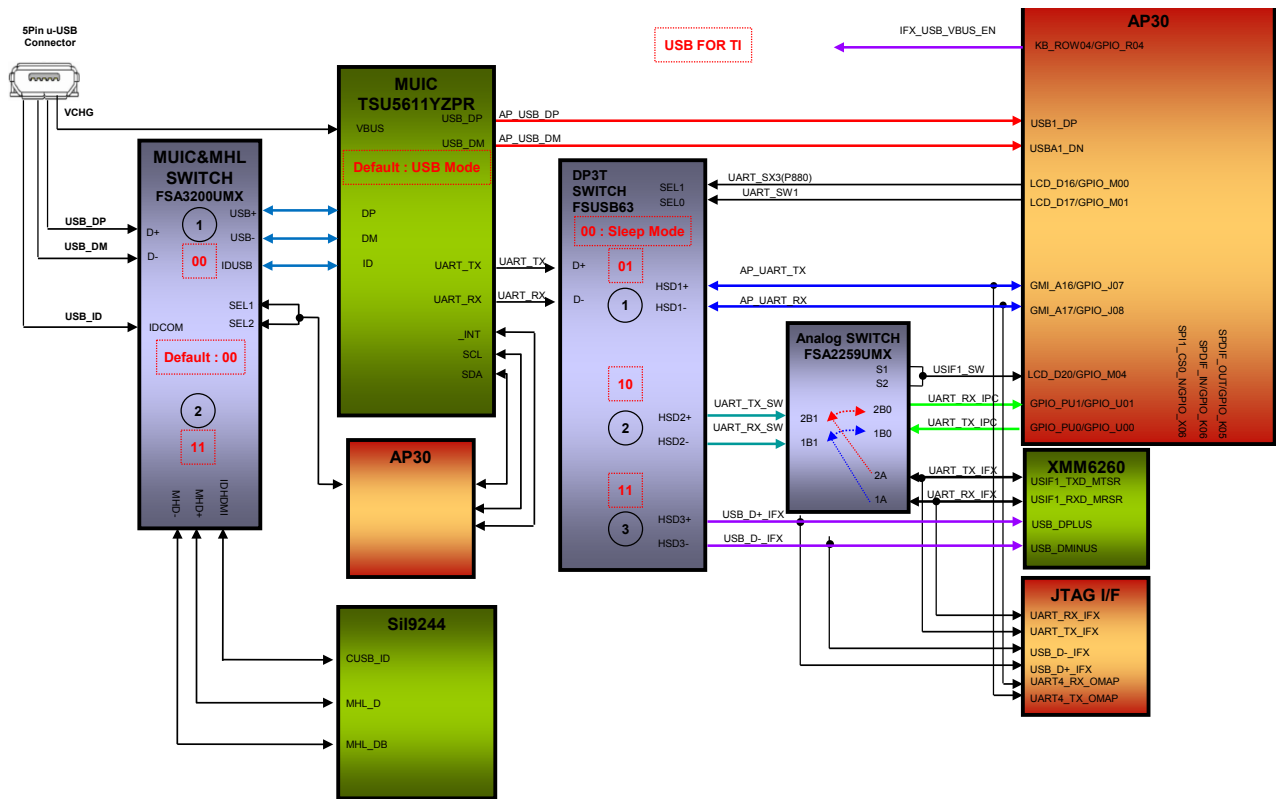


**AUDIO Block Diagram**



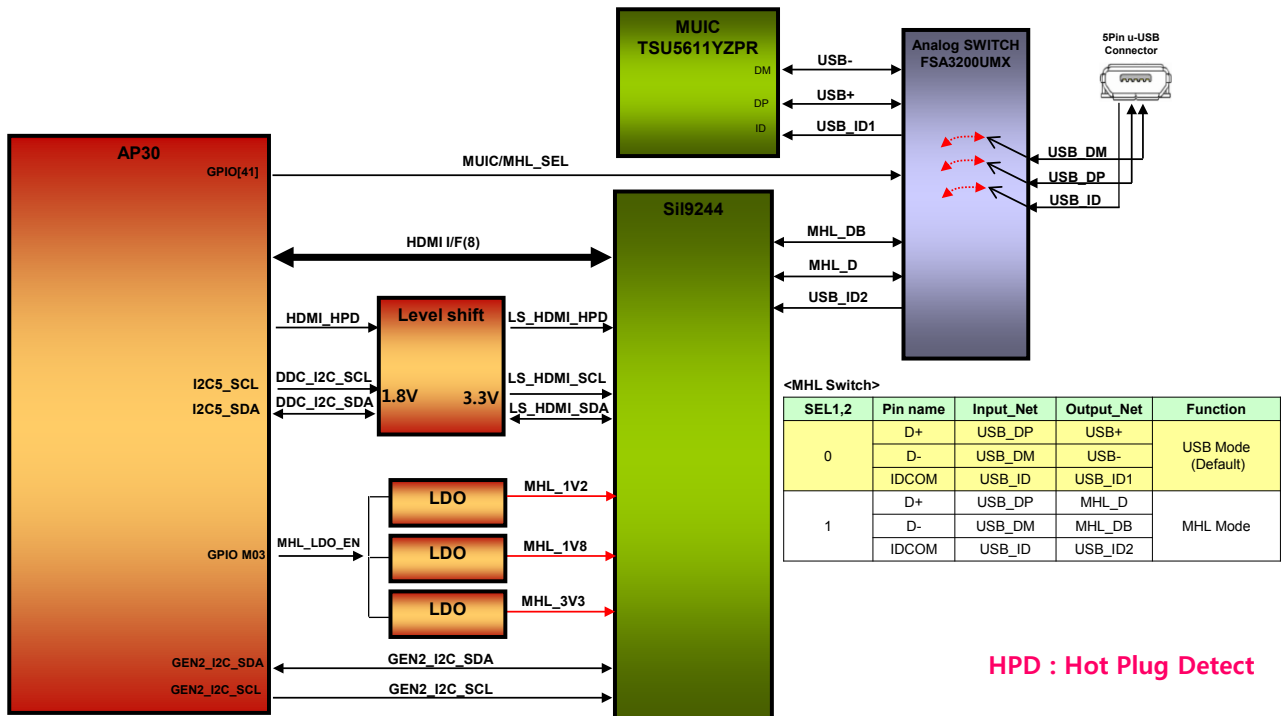
## 6. BLOCK DIAGRAM

USB, UART Block Diagram



## 6. BLOCK DIAGRAM

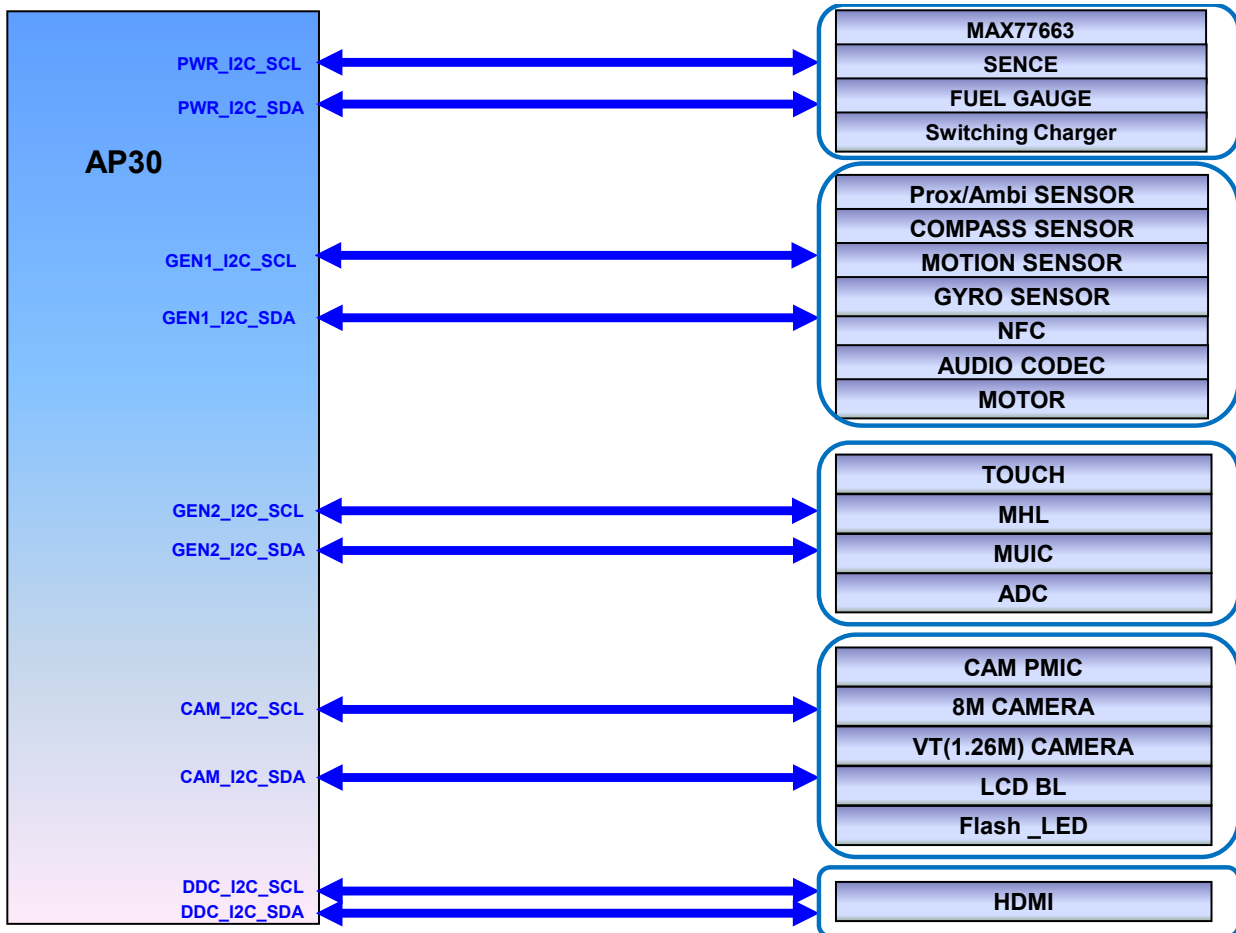
### MHL





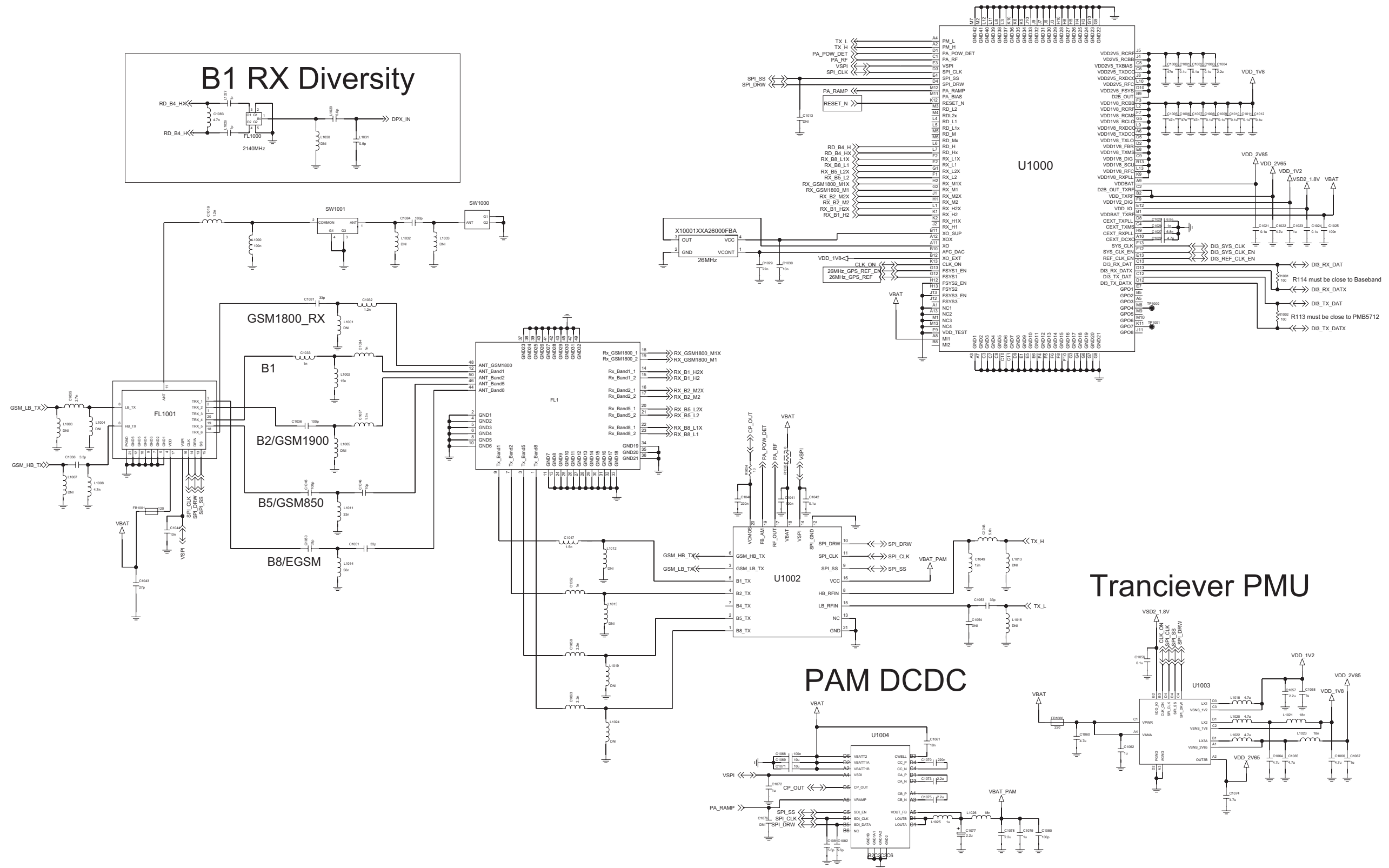
## 6. BLOCK DIAGRAM

### I2C Interface



## 7. CIRCUIT DIAGRAM

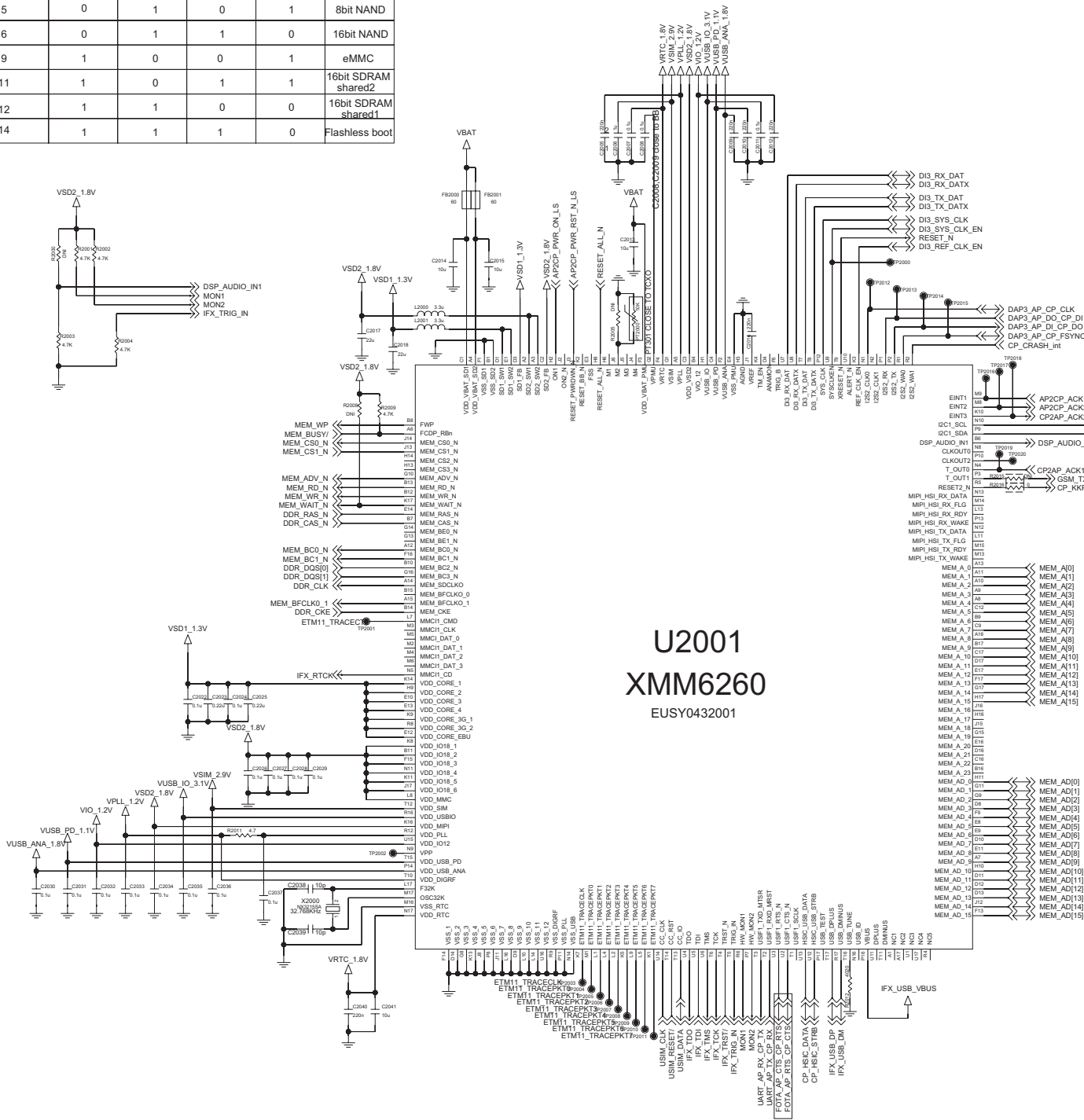
# RF PMB5712Quad-Band



Boot Configuration

MODE	DSP_AUDIO_IN1	MON1	MON2	IFX_TRIG_IN	IFX_TRIG_IN
1	0	0	0	1	16bit AD NOR
2	0	0	1	0	16bit AAD NOR
5	0	1	0	1	8bit NAND
6	0	1	1	0	16bit NAND
9	1	0	0	1	eMMC
11	1	0	1	1	16bit SDRAM shared2
12	1	1	0	0	16bit SDRAM shared1
14	1	1	1	0	Flashless boot

# BASE BAND PROCESSOR



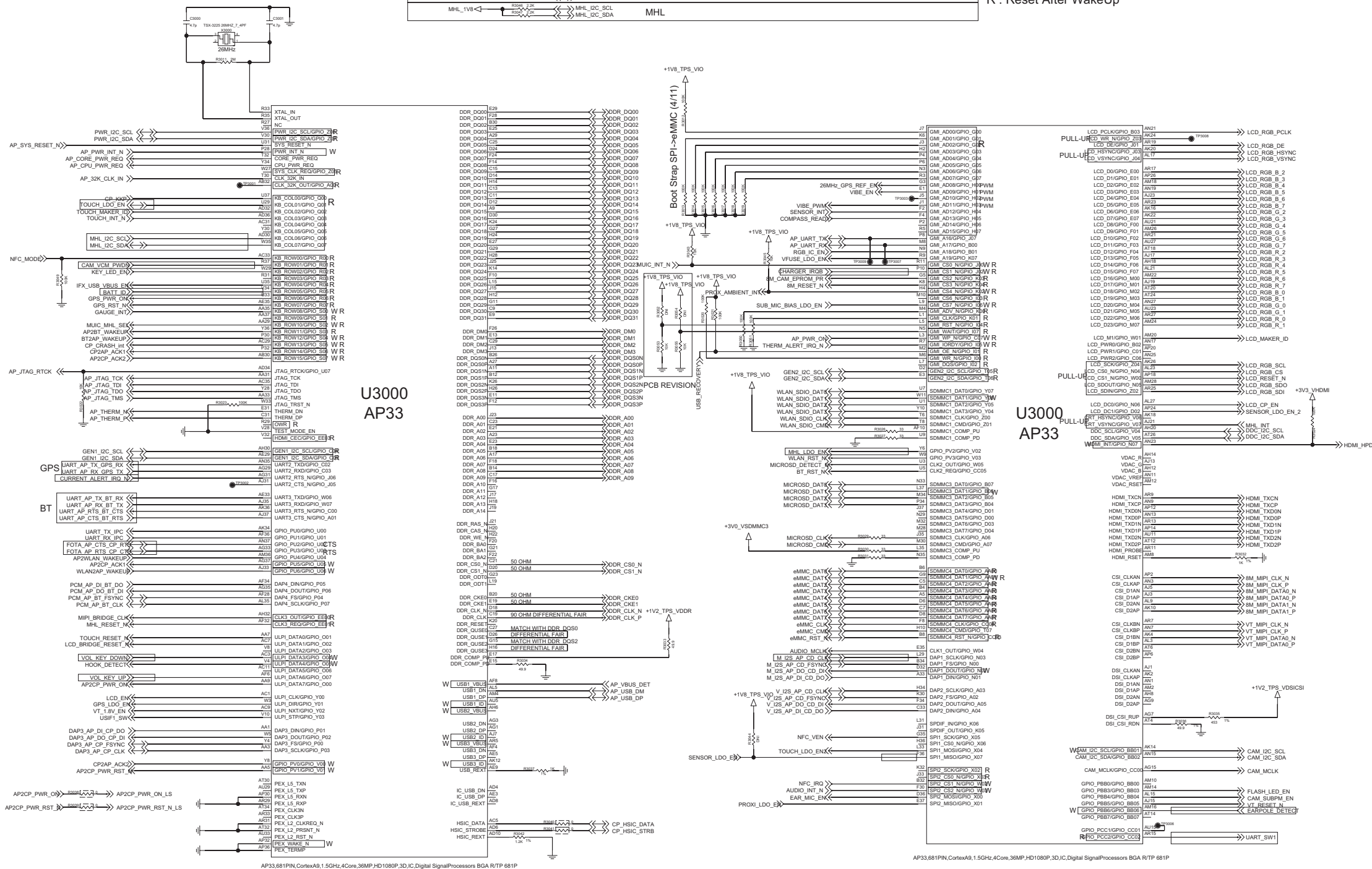
## 7. CIRCUIT DIAGRAM

# AP33 System

# AP33 I2C MAP

+1V8_TPS_VIO		PMU (MAX77663)	Thermal (NCT1008)	Fuel Gauge (MAX17043)	Switching Charger (MAX8971)	Motor (ISA1200)	Current Monitor (HPA01112)
+1V8_TPS_VIO		PROX (APDS9960)	Compass (AMI306)	Motion+Gyro (MPU6050)	NFC (PN544)	Audio (MAX98089)	
+1V8_TPS_VIO		MUIIC (MAX14526)	ADC (TSC2007)	Touch (S3203)	LCD_B/L (LM3533)		
+1V8_TPS_VIO		BM CAM (IMX111)	VT CAM (IMX119)	CAM_PMIC (LPB720)	FLASH DRV (LM3559)		
+3V3_VDDIO		DDC_D0_SCL (HDMI)					
MHL_1V8		MHL_D0_SCL (MHL)					

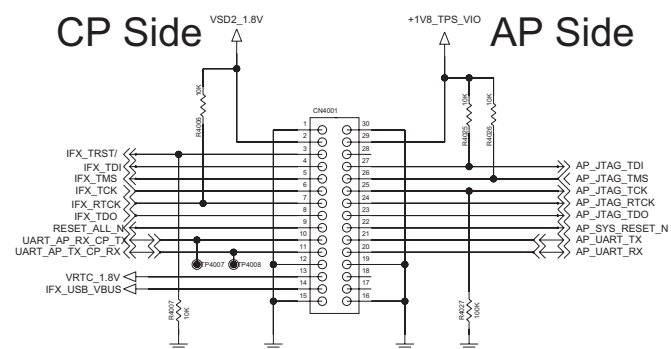
W : WakeEvents Pins  
R : Reset After WakeUp



# AP30 Power

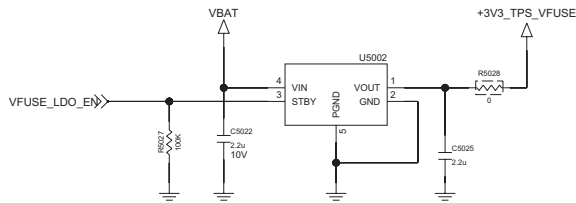
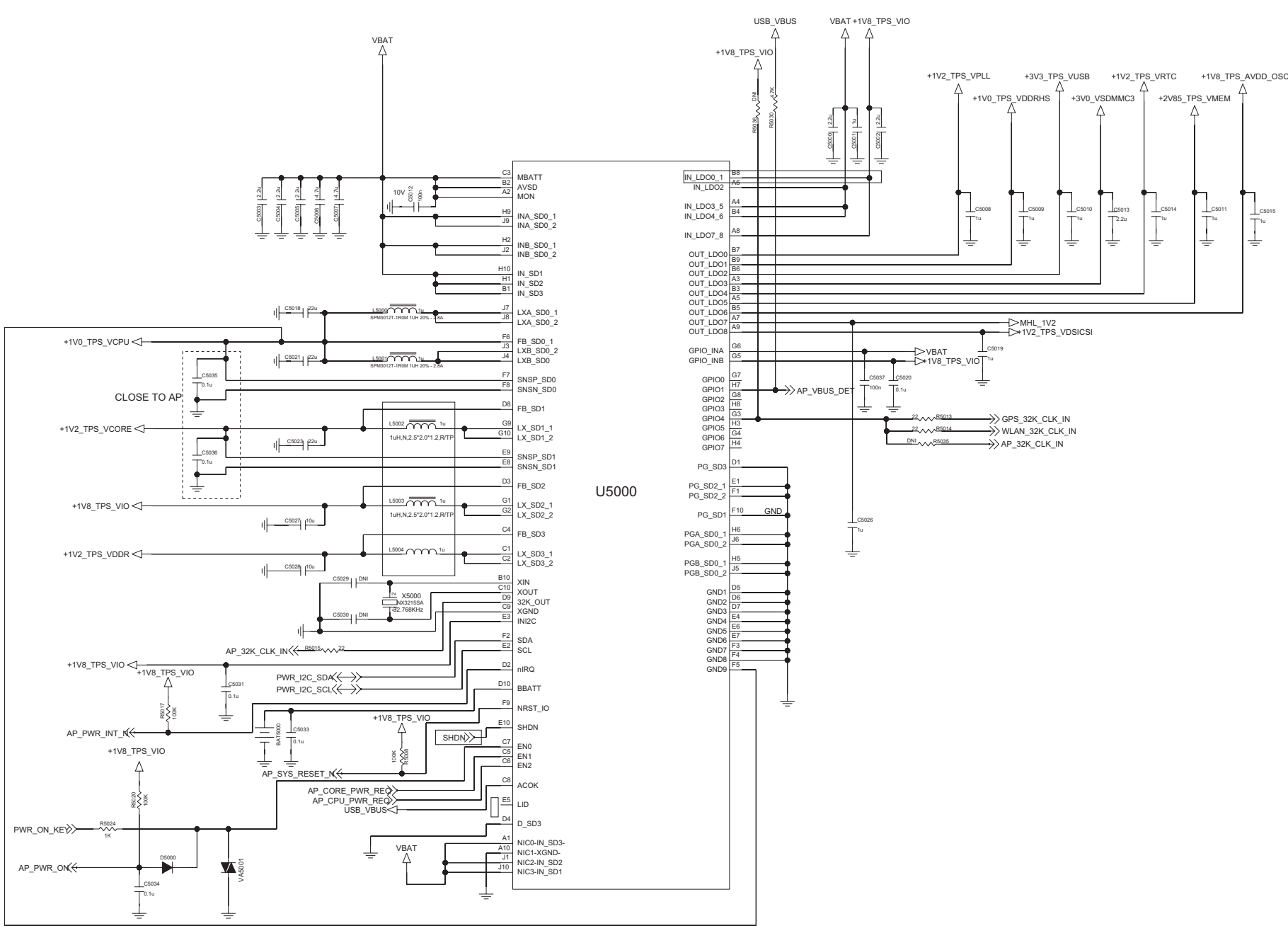


CP Side      VSD2\_1.8V      +1V8\_TPS\_VIO      AP Side

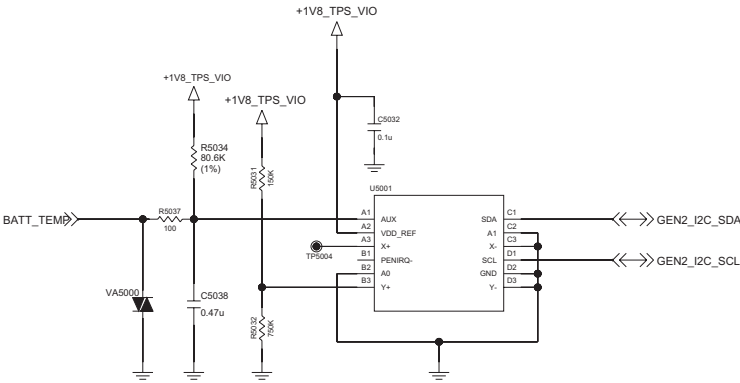




# PMIC (MAX77663)

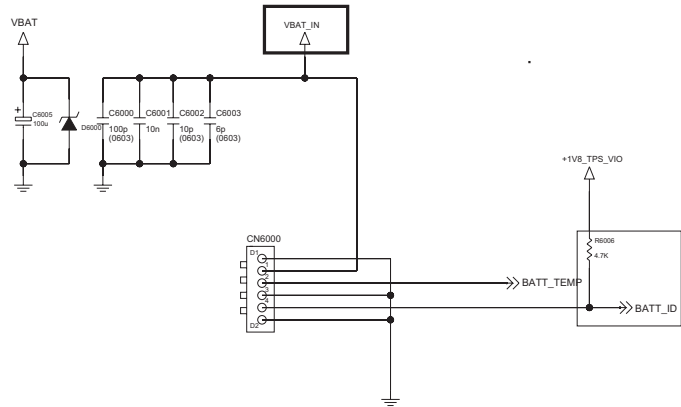


## 4ch. ADC

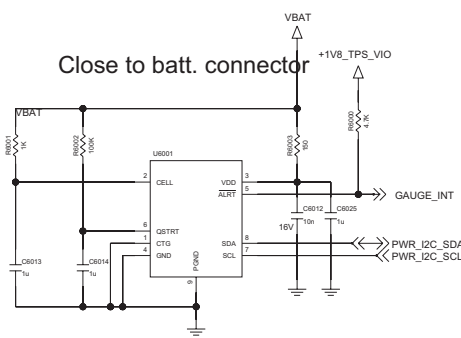


	ADC Voltage	R5031	R5032	R5032 PART NUMBER
REV A	0.211	150K	20K	ERHZ0000237
REV B	0.429	150K	47K	ERHZ0000287
REV C	0.561	150K	68K	ERHZ0000312
REV D	0.720	150K	100K	ERHZ0000204
REV E	0.900	150K	150K	ERHZ0000222
REV F	1.200	150K	300K	ERHZ0000265
REV G	1.364	150K	470K	ERHZ0000288
REV 1.0	1.474	150K	680K	ERHZ0000537
REV_1.1	1.500	150K	750K	ERHZ0000316

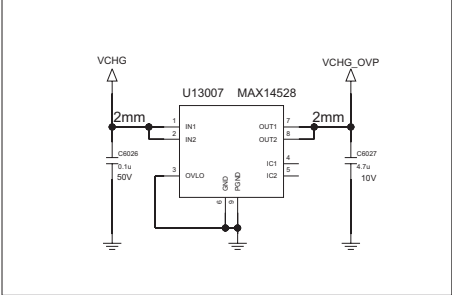
BATTERY CONNECTOR



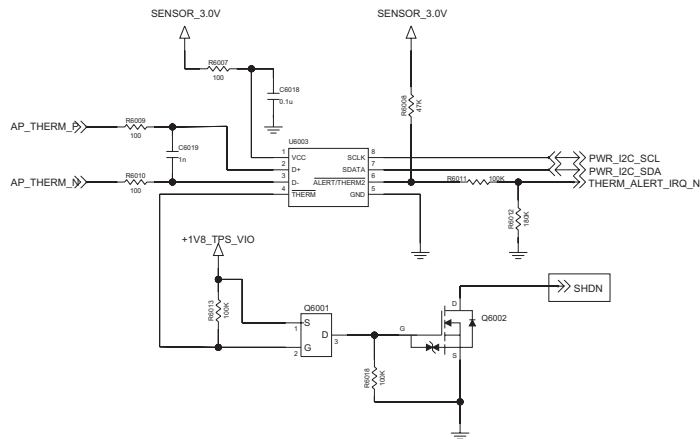
FUEL GAUGE



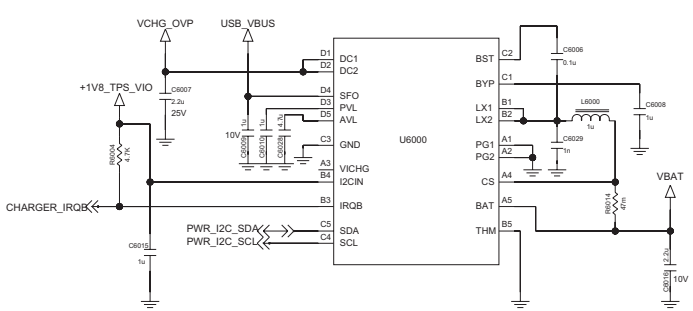
OVP\_VCHG



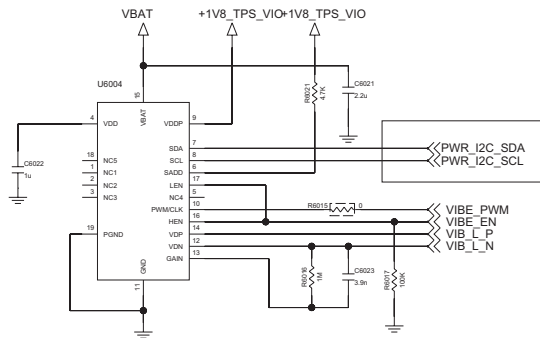
THERMAL SENSOR



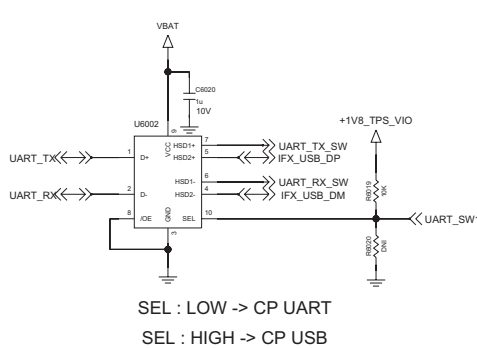
CHARGING IC



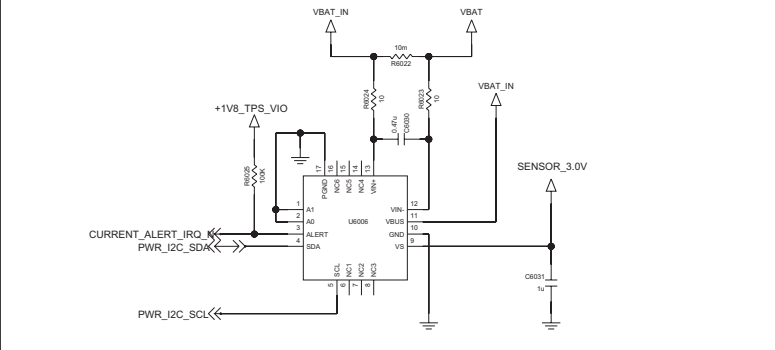
Linear Motor Driver



CP USB&UART SWITCH

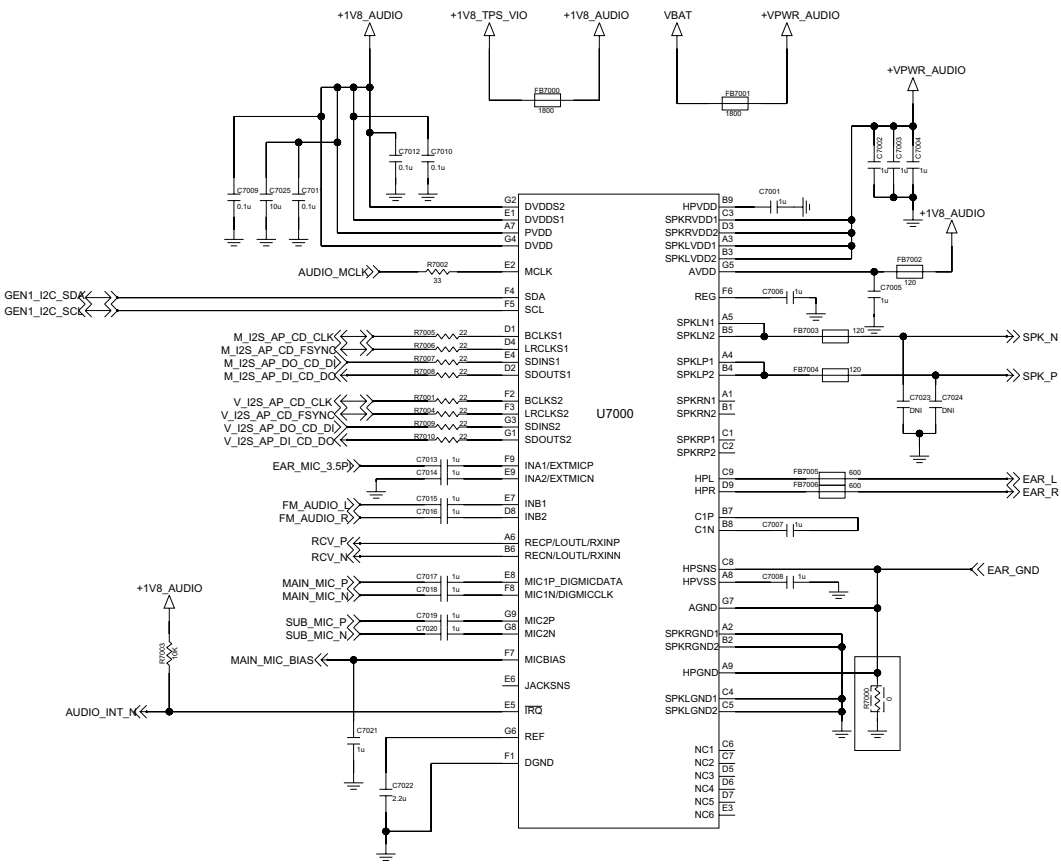


CURRENT SENSE IC





MAX98089 (AUDIO CODEC)



I2C ADDRESS

PWR_I2C			
	7bit		
PMU (MAX77663)	0x1C	001_1100	PMIC
	0x48	100_1000	RTC
thermal (NCT1008)	0x4C	100_1100	
Fuel_gage (MAX17043)	0x36	011_0110	
Switching (MAX8971)	0x35	011_0101	
Motor (ISA1200)	0x49	100_1001	SADD=1 REV_8 적용
Current monitor (HPA01112)	0x40	100_0000	

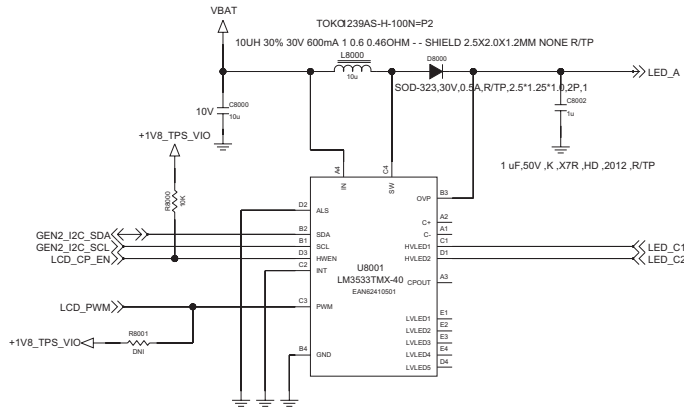
CAM_I2C			
	7bit		
8M CAM	0x1A	001_1010	
	0x10	001_0000	
	0x36	011_0110	
VT	0x37	011_0111	
CAM_PMIC (LP8720)	0x7D	111_1101	
FLASH_DRV	0x53	101_0011	

GEN1_I2C			
	7bit		
PROX APDS9900	0x39	011_1001	
Compass (AMI306)	0x0E	000_1110	
motion+GYRO (MPU6050)	0x68	110_1000	AD=0
NFC (PN544)	0x28	010_1000	
AUDIO (MAX98089)	0x10	001_0000	

GEN2_I2C			
	7bit		
MUIC (MAX14526)	0x44	100_0100	
ADC (TSC2007)	0x48	100_1000	
Touch (S3203)	0x20	010_0000	
LCD_BL (LM3533)	0x36	011_0110	

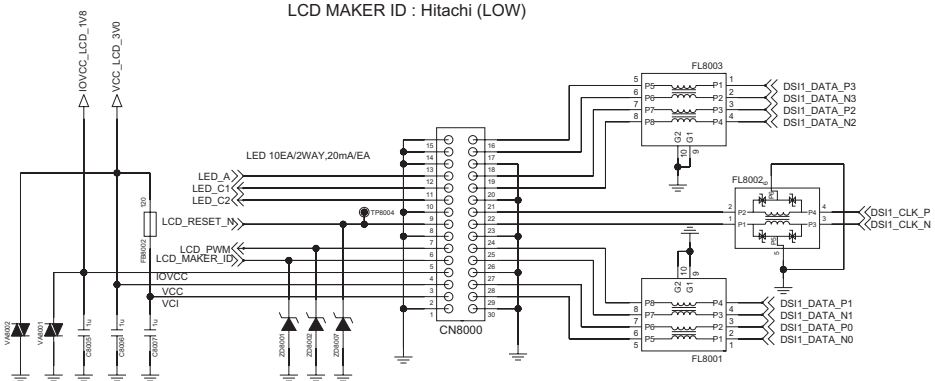
MHL_I2C			
MHL (SI9244)	0x39	011_1001	
	0x3D	011_1101	
	0x49	100_1001	
	0x64	110_1000	

## LCD BackLight Driver (2string)

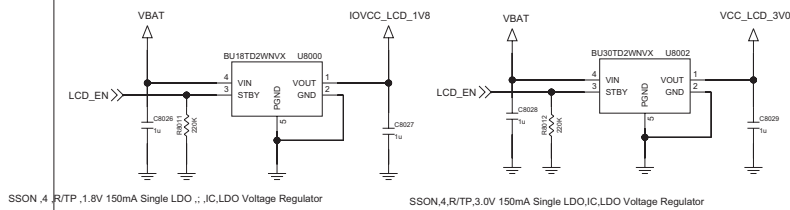


## 4.57" HD LCD

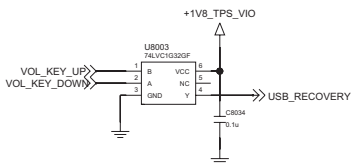
LCD MAKER ID : Hitachi (LOW)



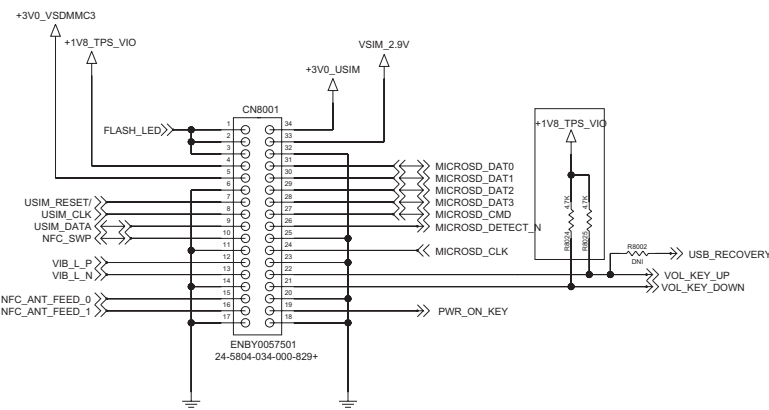
## LCD POWER



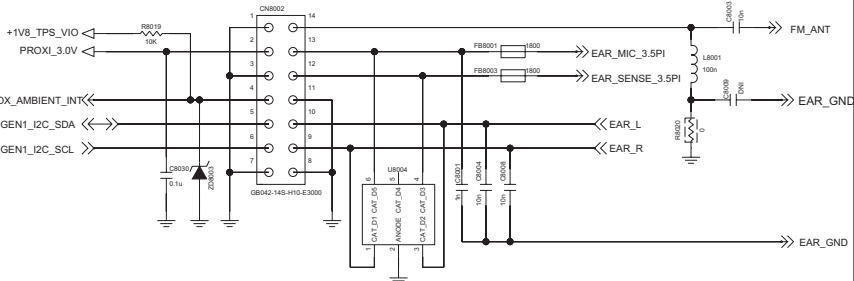
## USB RECOVERY



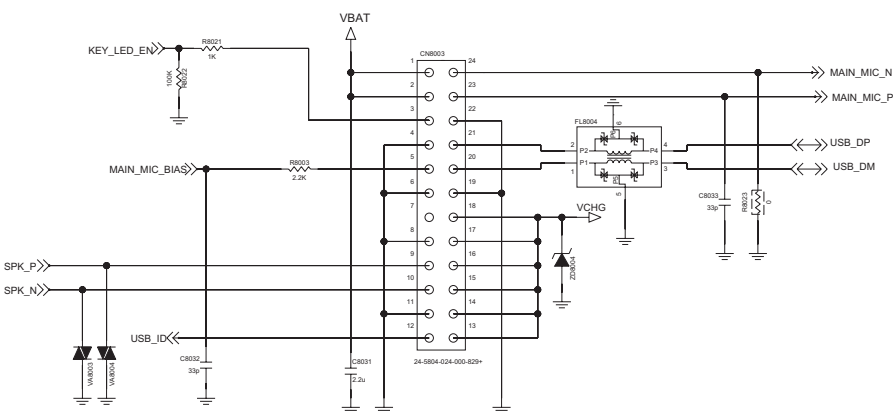
## MAIN to SUB Connector



## FPCB\_UPPER\_CONNECTOR

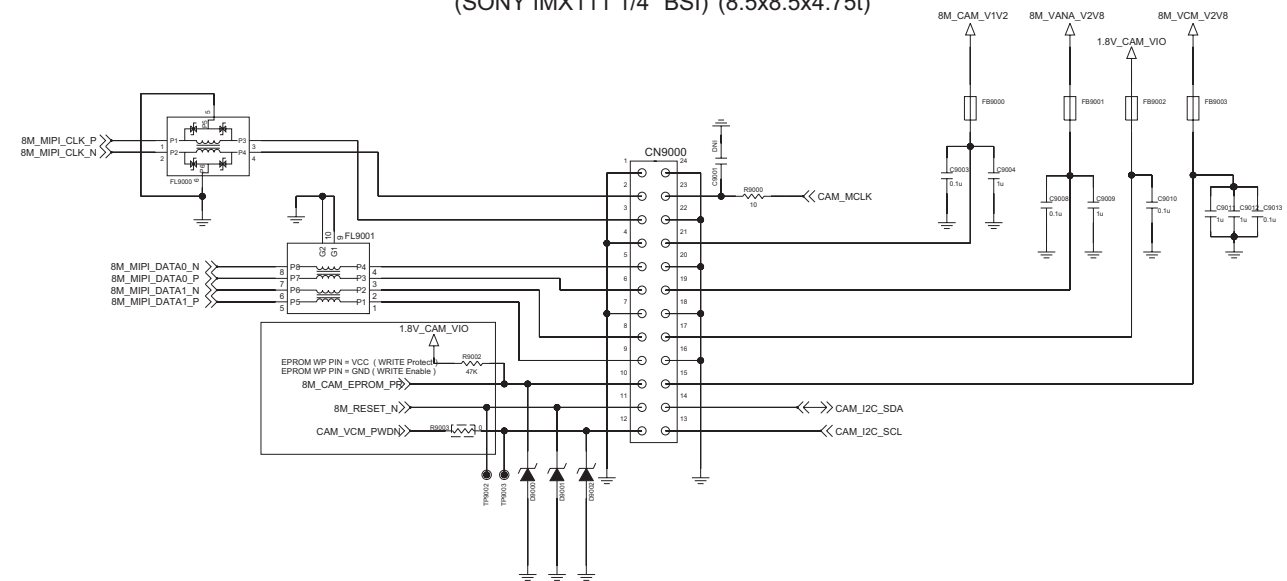


## FPCB\_LOWER\_CONNECTOR

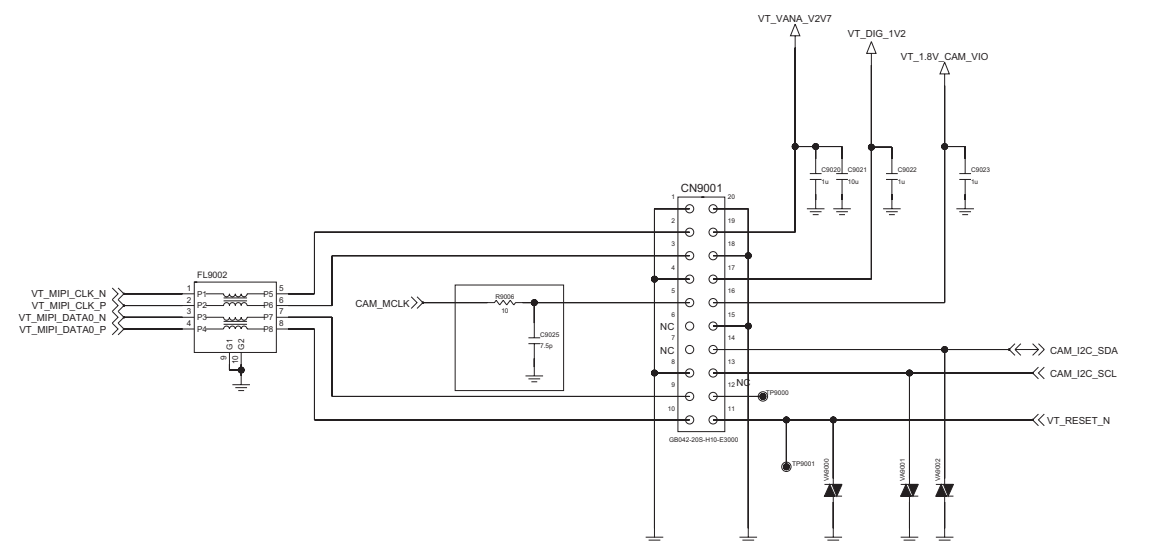


[illegible][illegible]

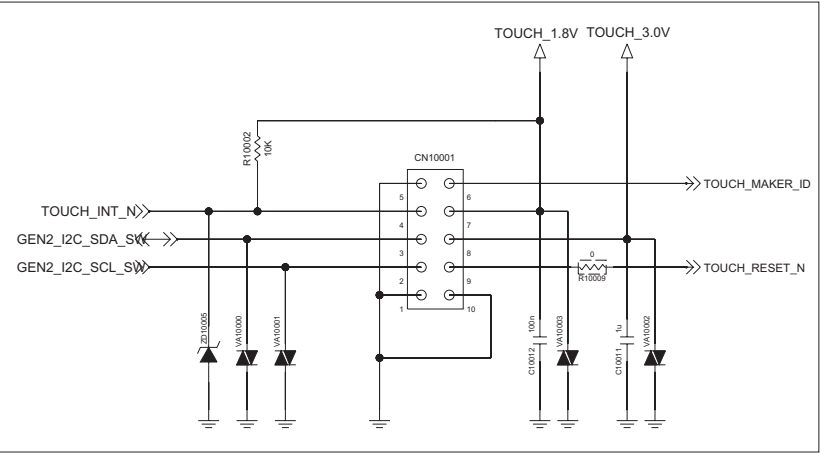
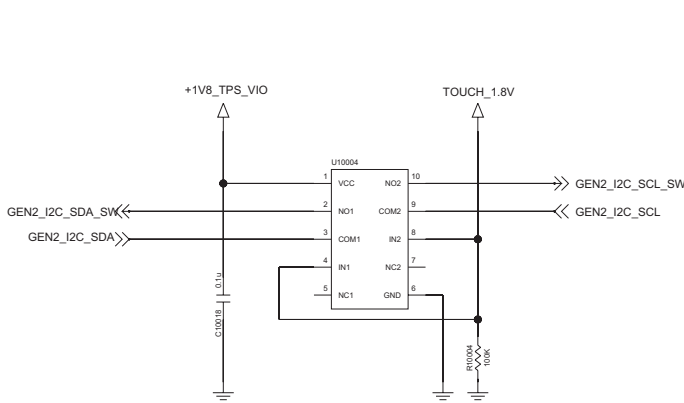
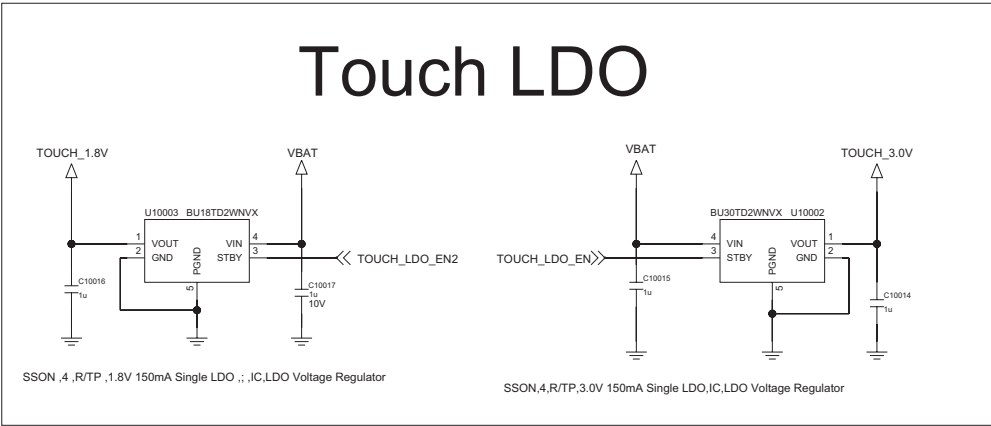
(SONY IMX111 1/4" BSI) (8.5x8.5x4.75t)



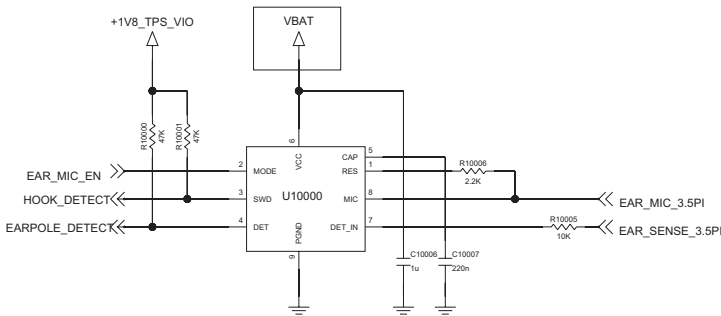
(SONY IMX119 1/7.8")      (5.0x5.0x3.0t)



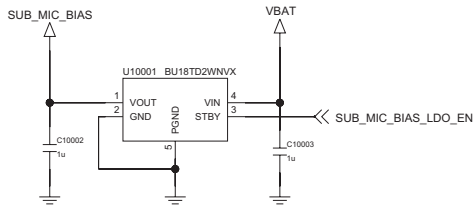
# Touch Connector



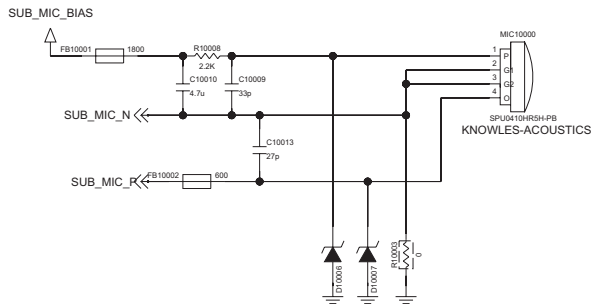
## HEADSET\_DETECT



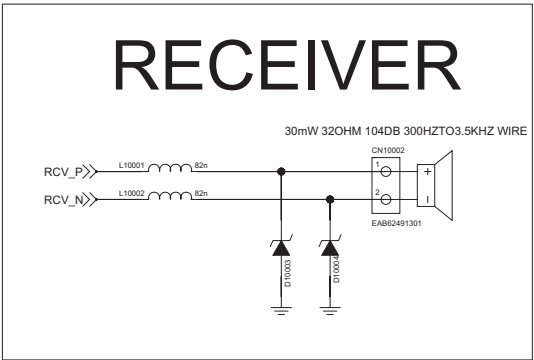
## SUB-MIC BIAS LDO



## SUB MIC TOP

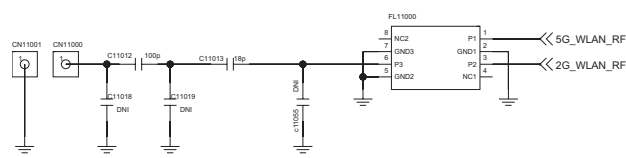


## RECEIVER

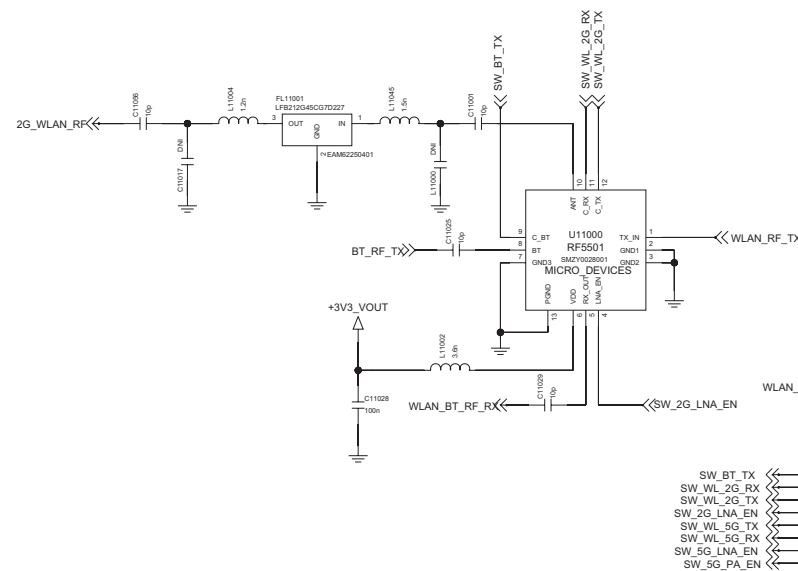


# [CCDS] Connectivity\_WiFi DualBand/BT/FM Combo

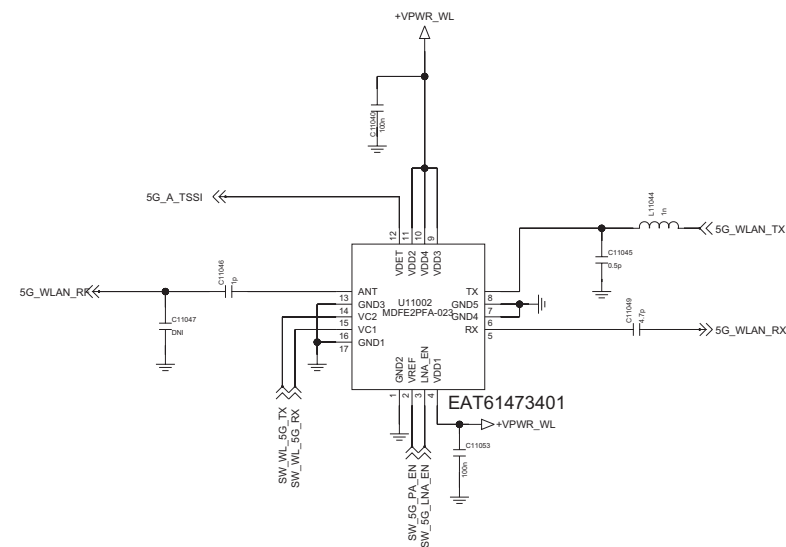
## Antenna & Diplexer



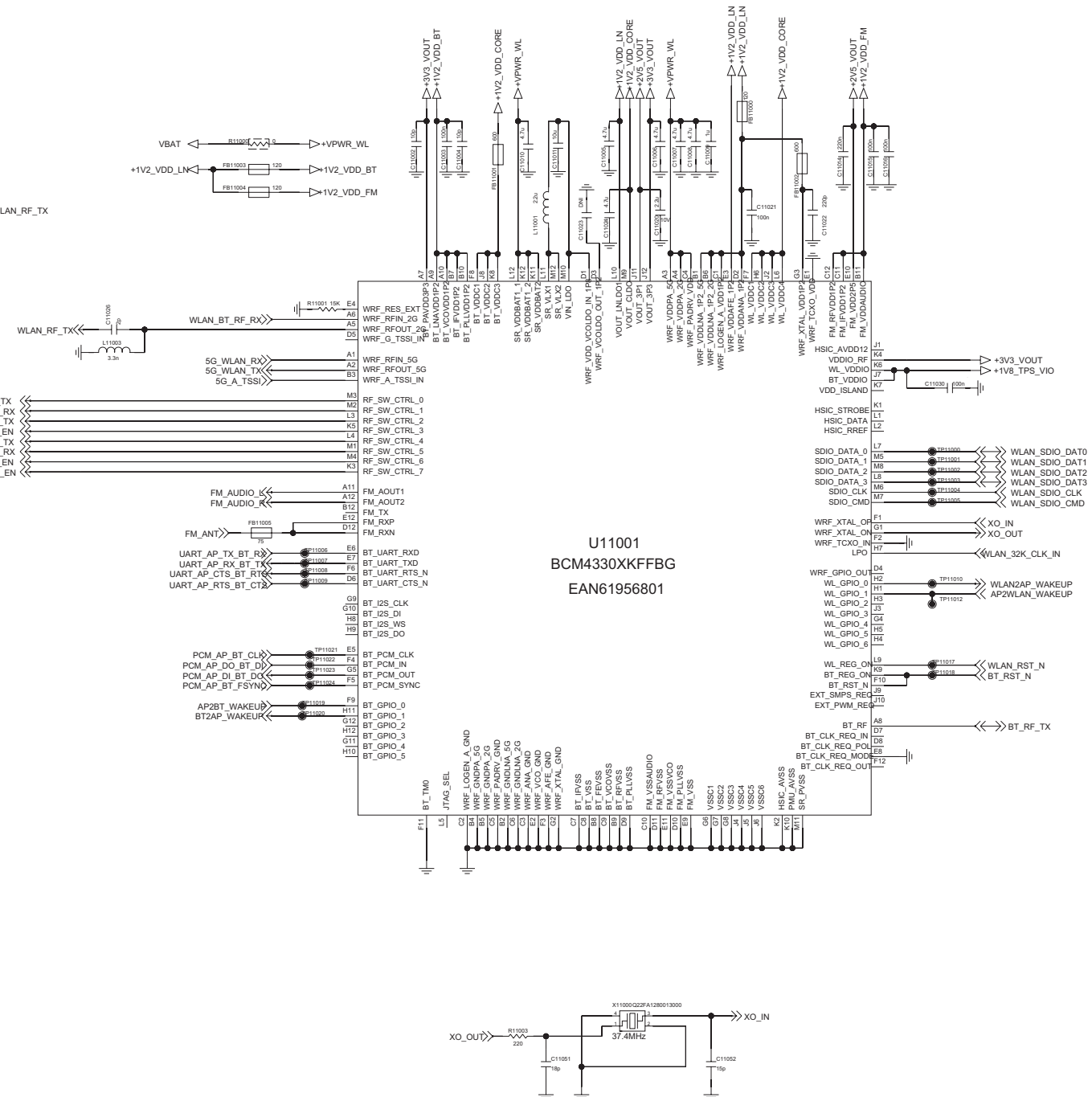
## 2.4GHz Wi-Fi & BT RF



## 5GHz Wi-Fi RF

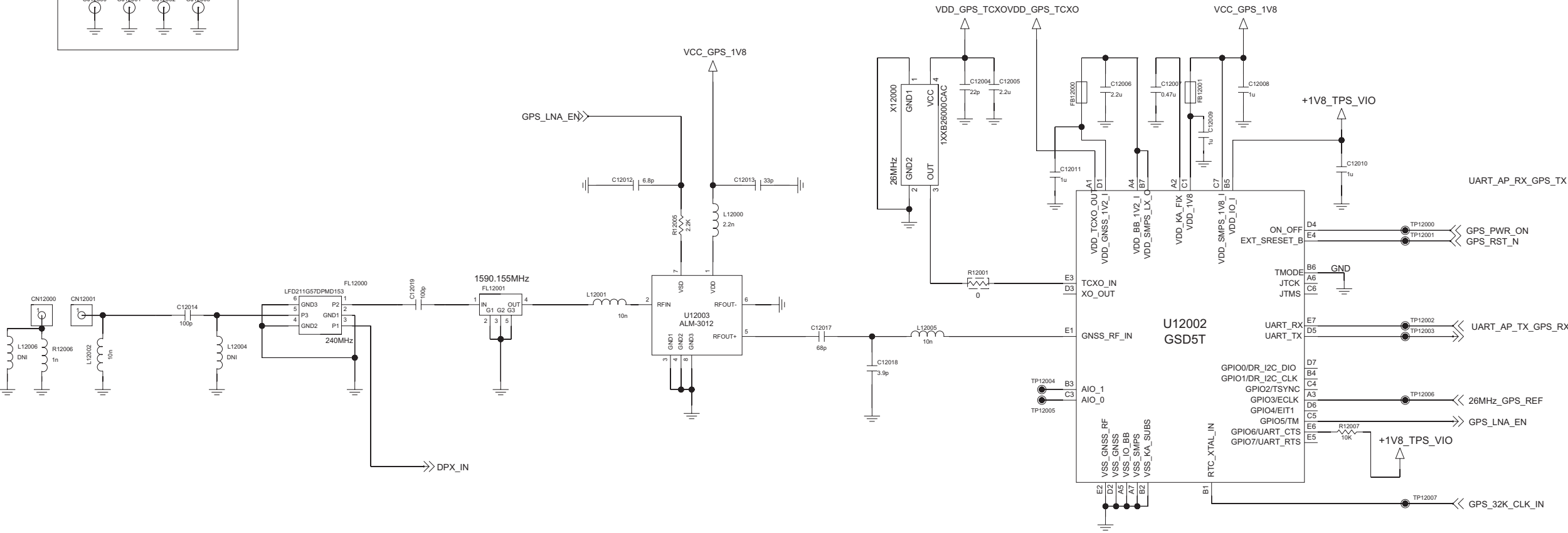
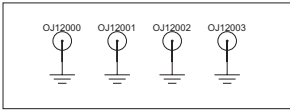
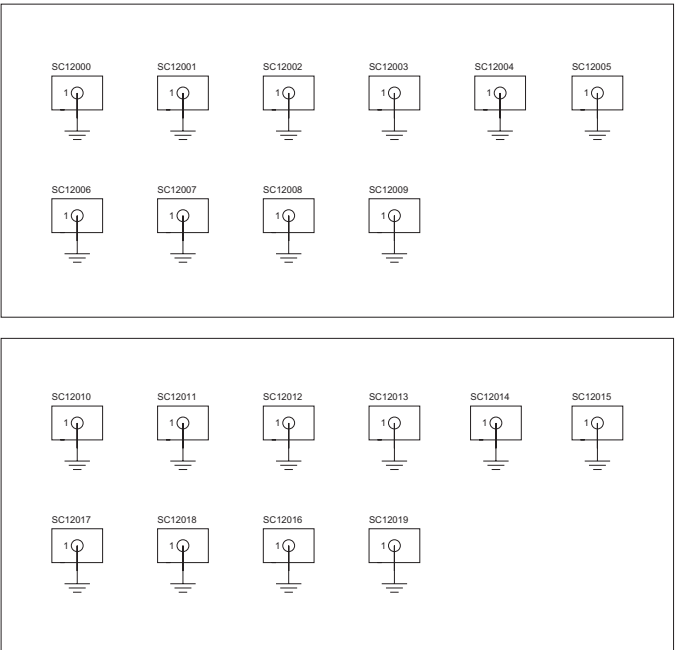
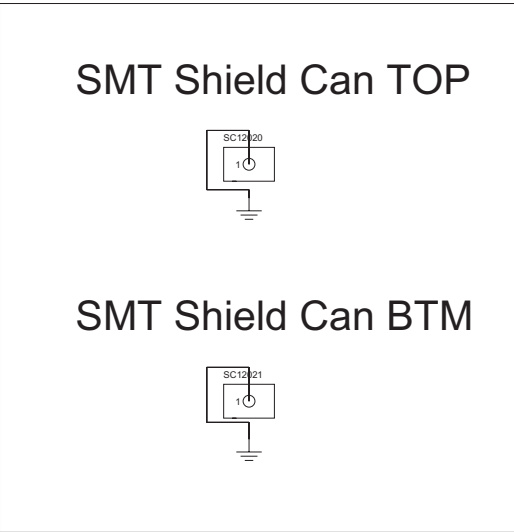
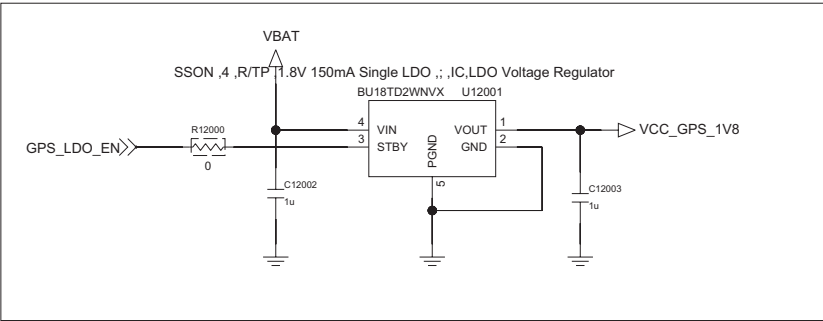


## Wi-Fi & Bluetooth BB

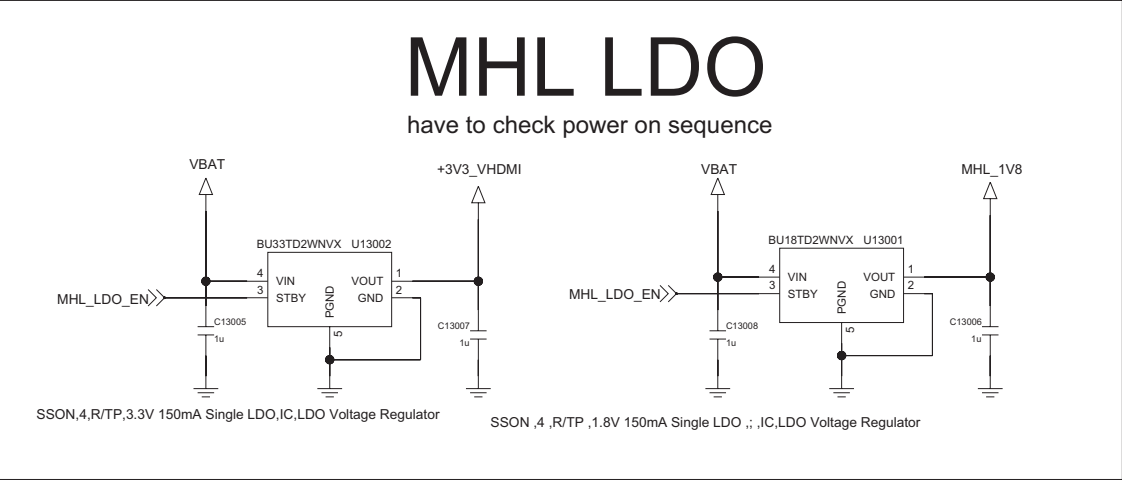


# GNSS

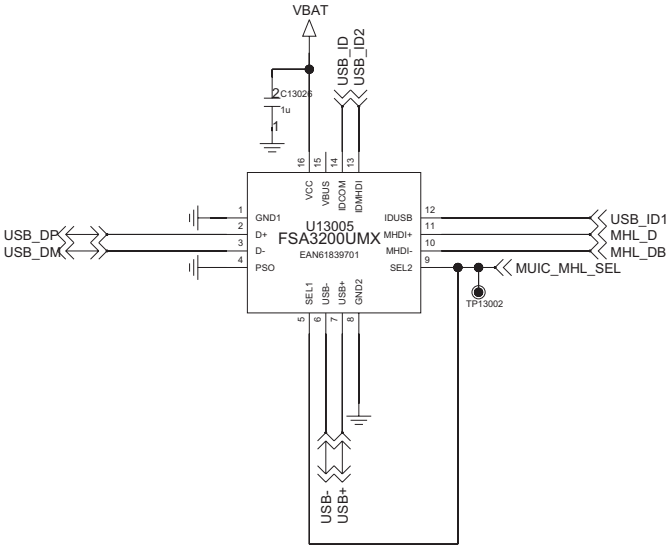
## Shield Can Clip





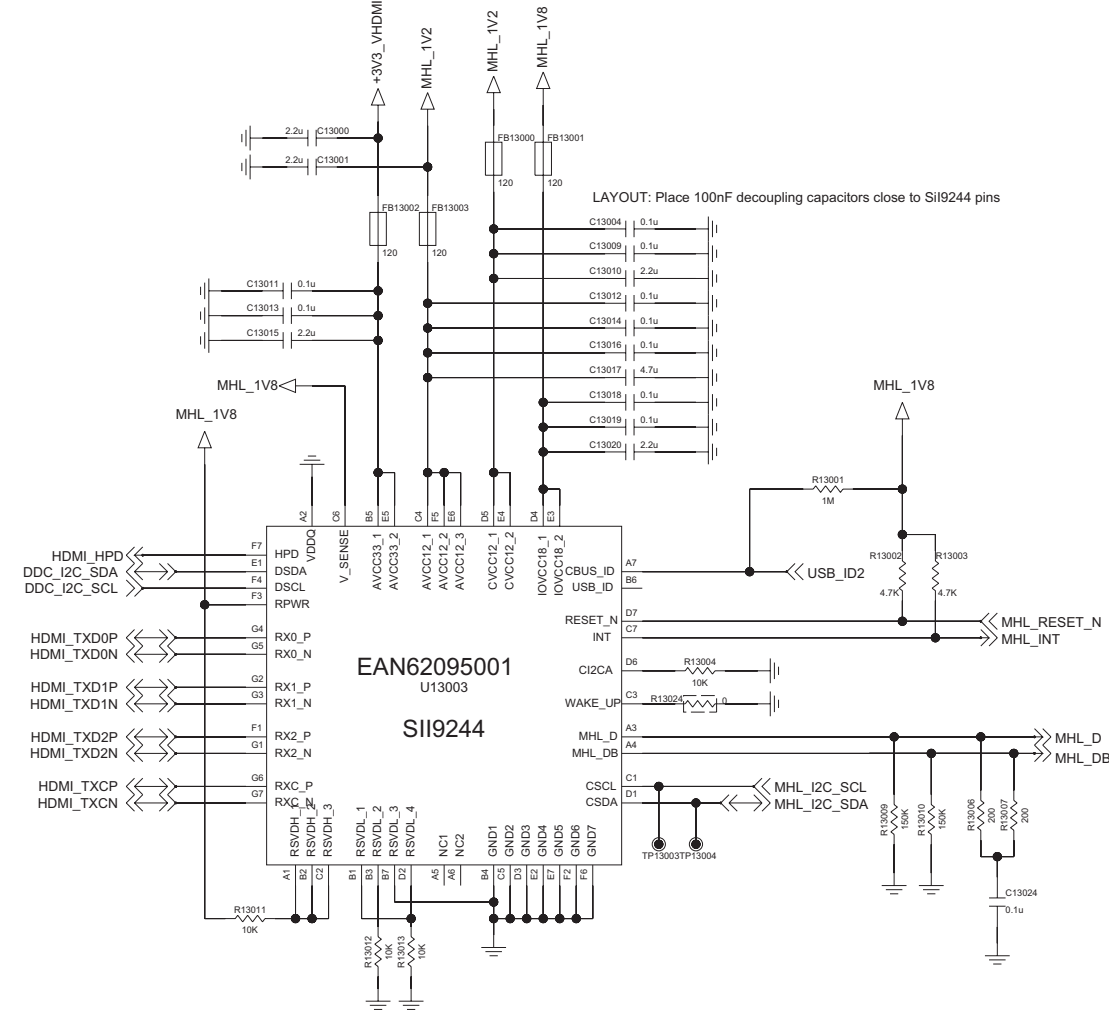


# MUIC & MHL SWITCH

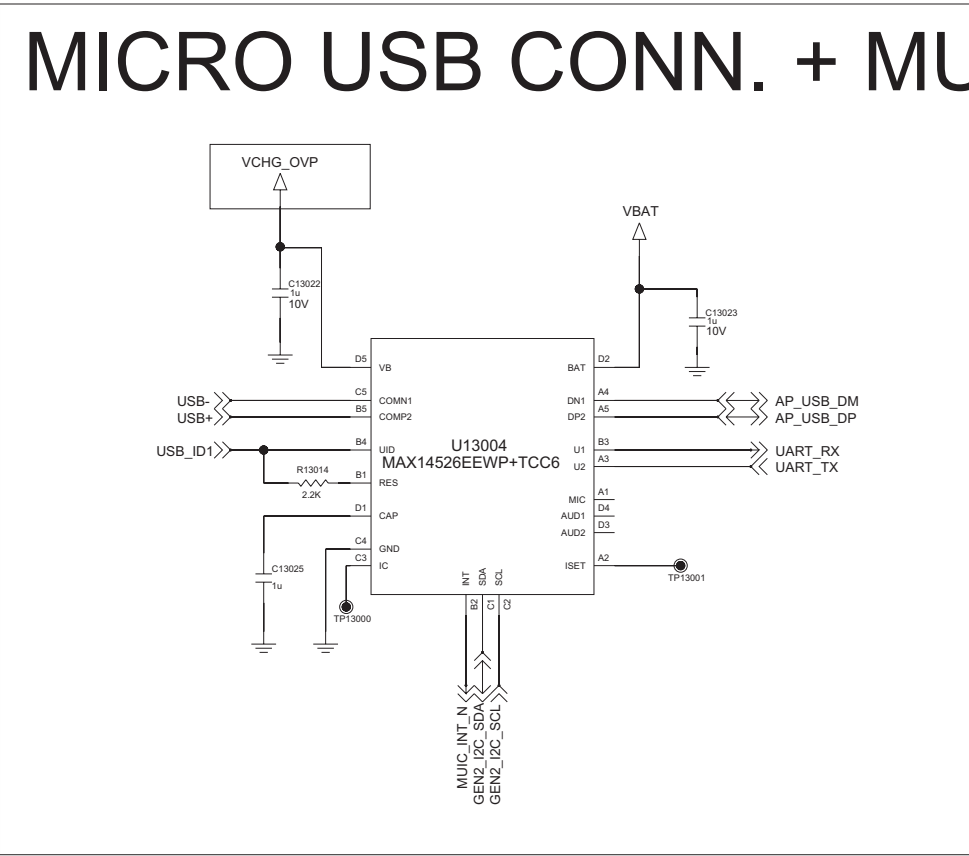


# HDMI TO MHL TX

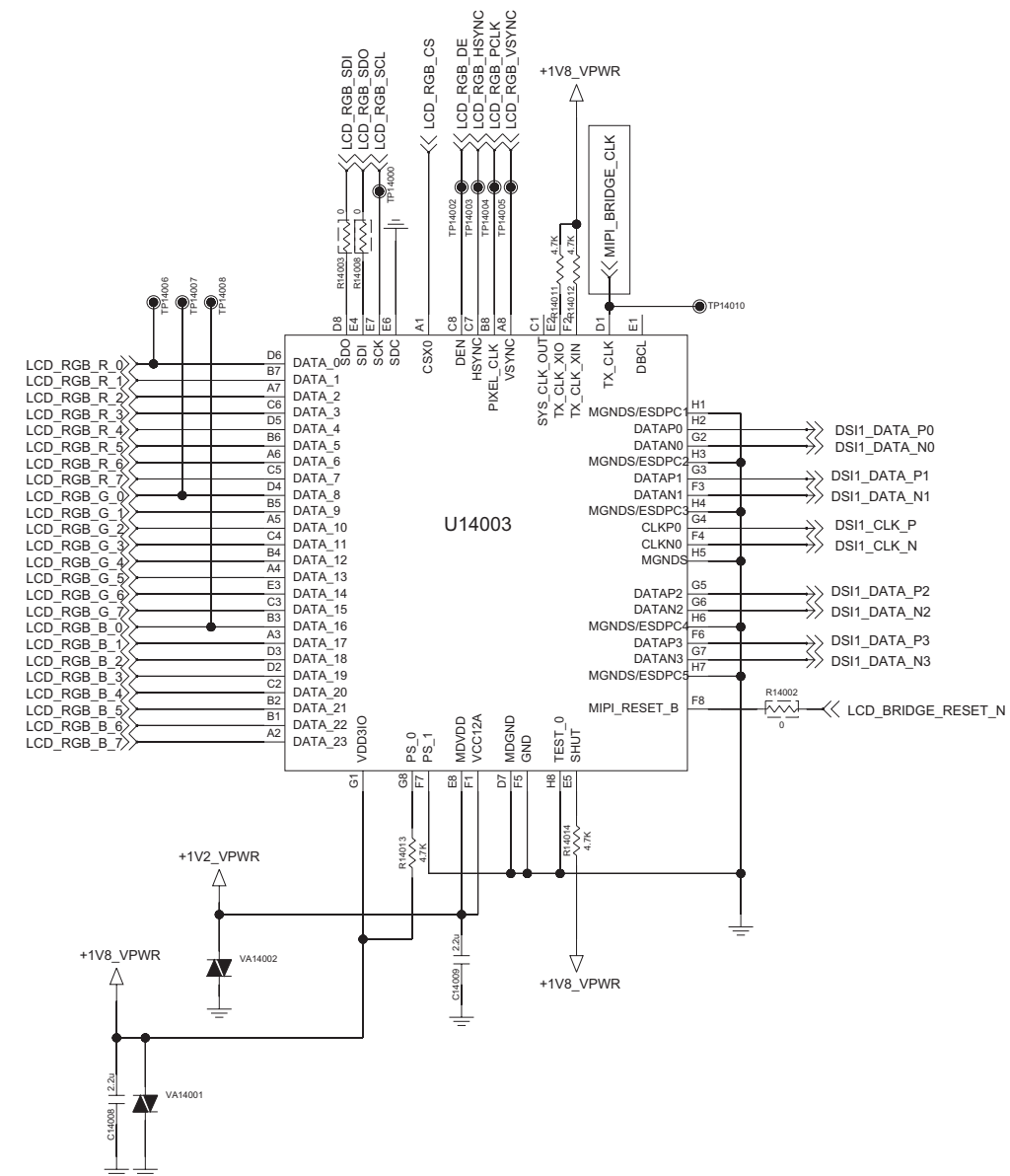
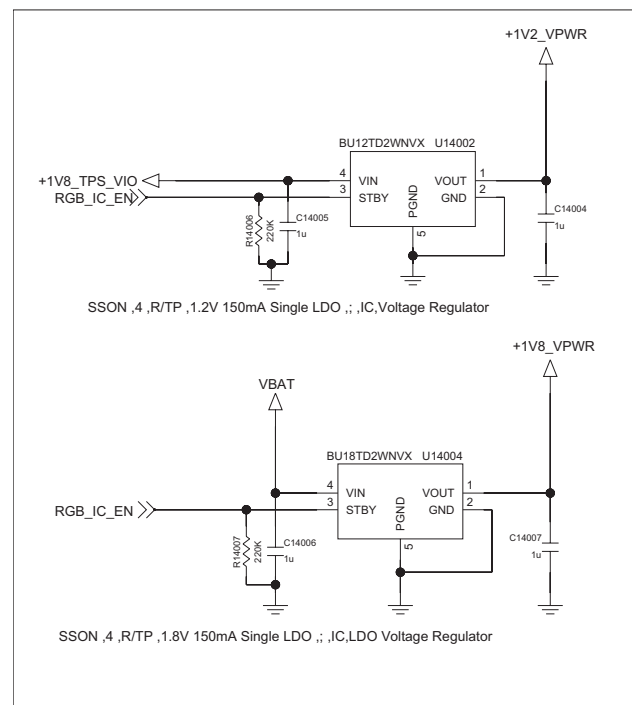
have to verify circuit, omap OUTPUT Voltage level / MHL input voltage level check!!!

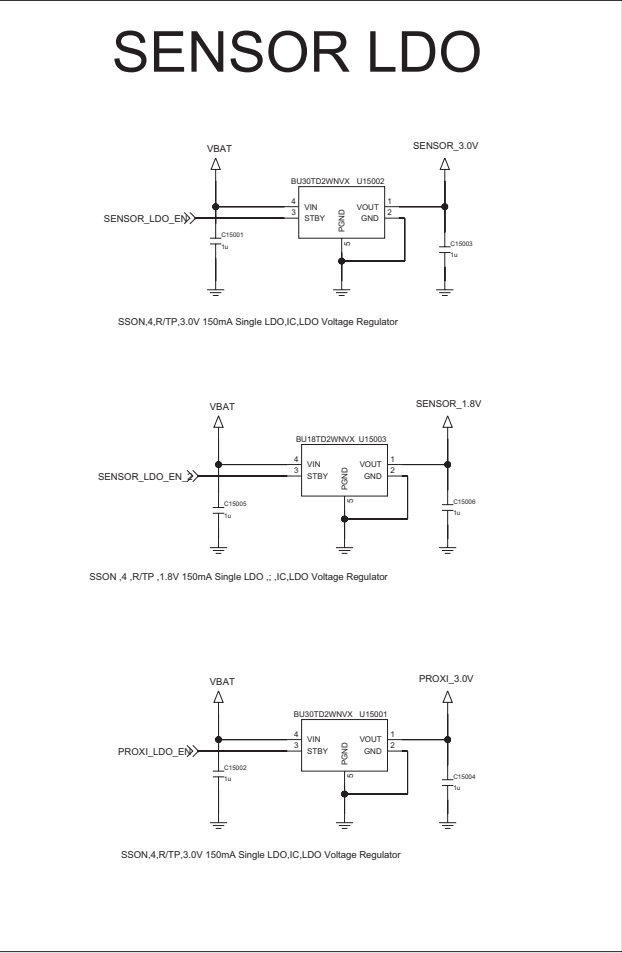
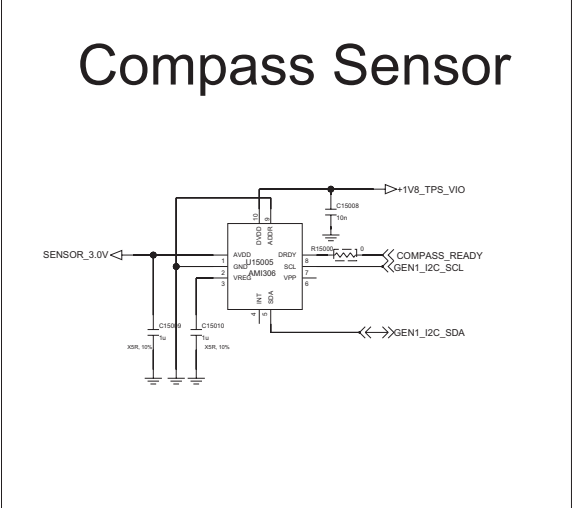
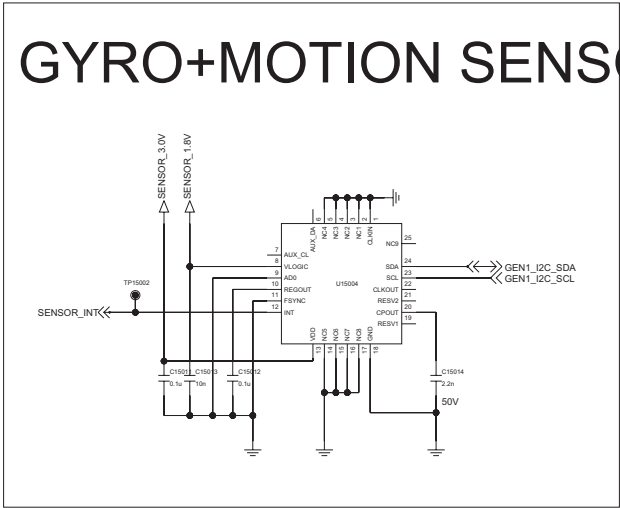


# MICRO USB CONN. + MUIC

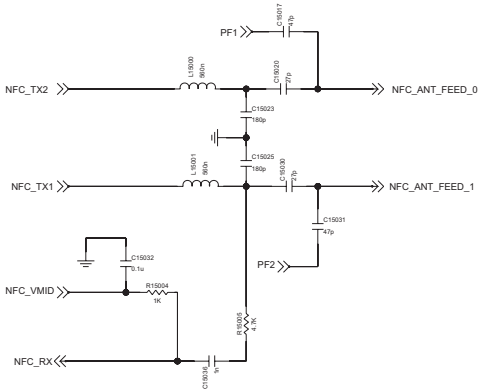
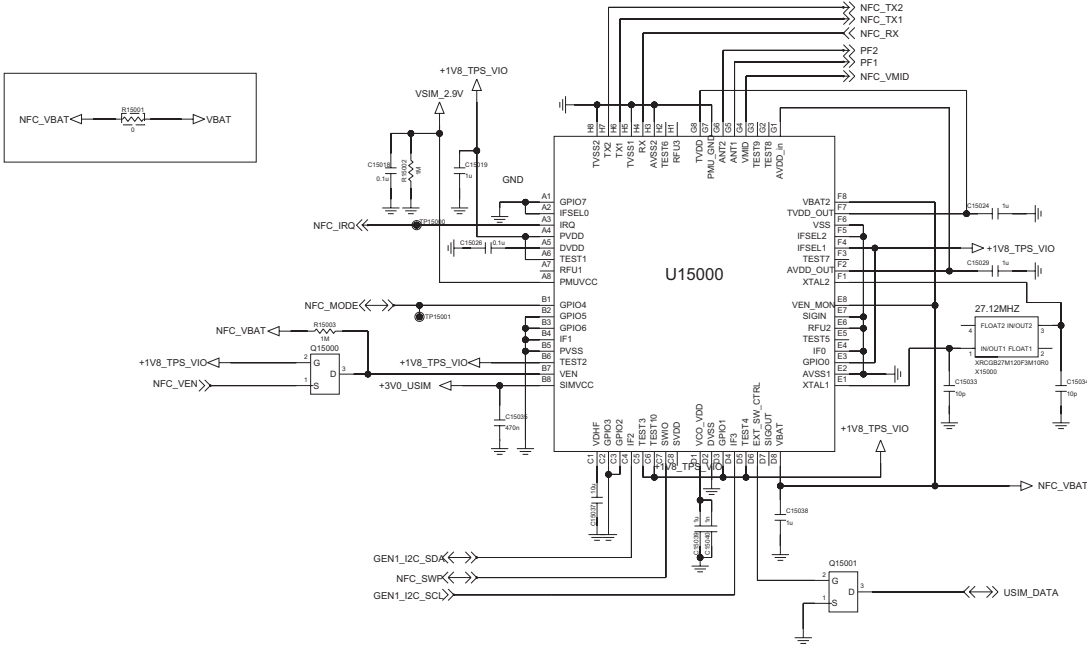


# RGB to MIPI Converter

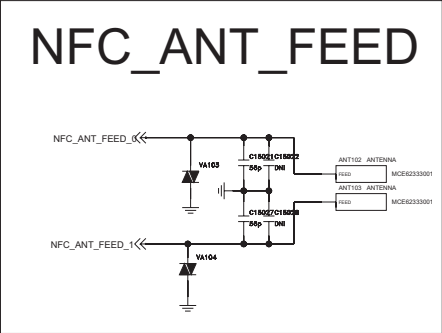
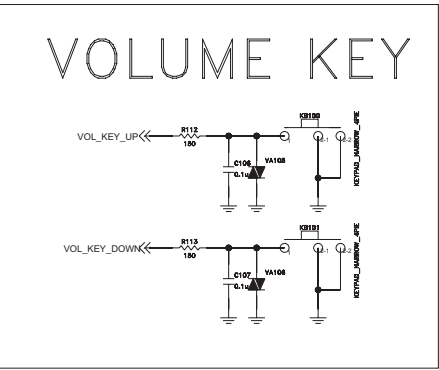
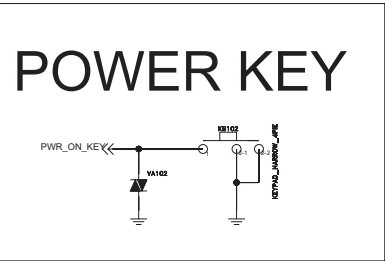
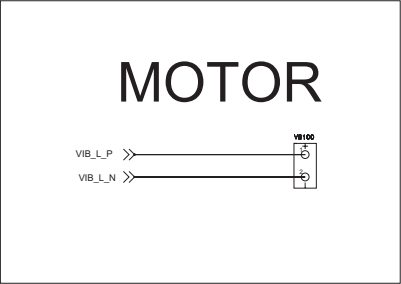
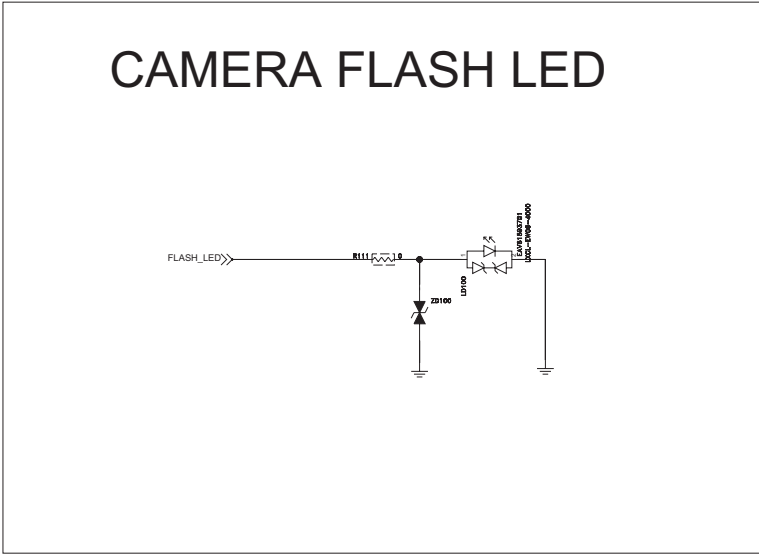
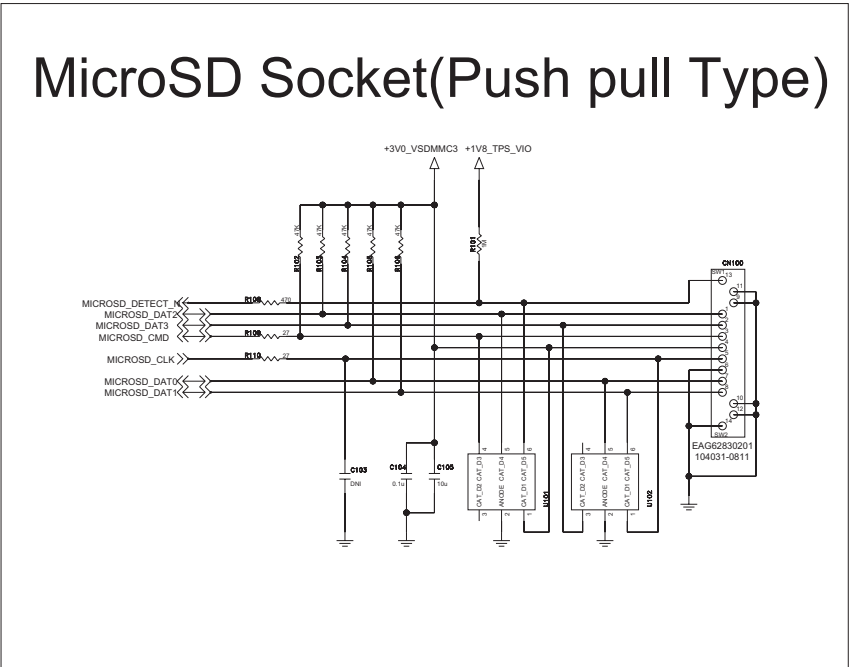
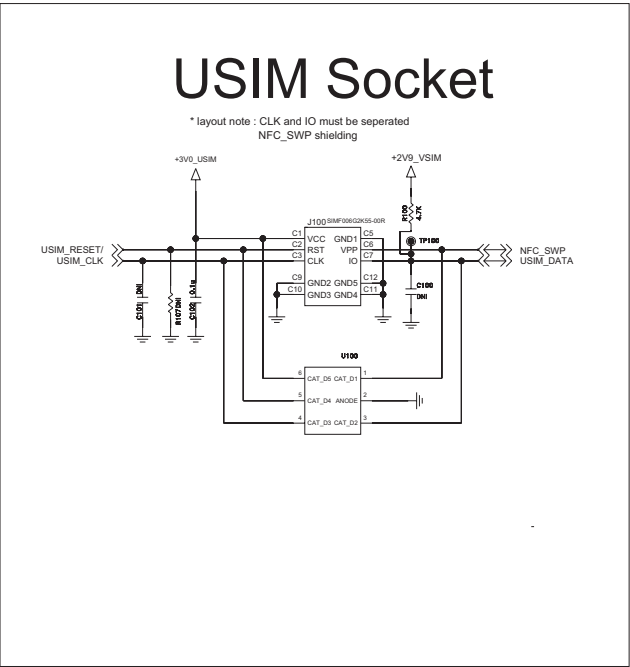
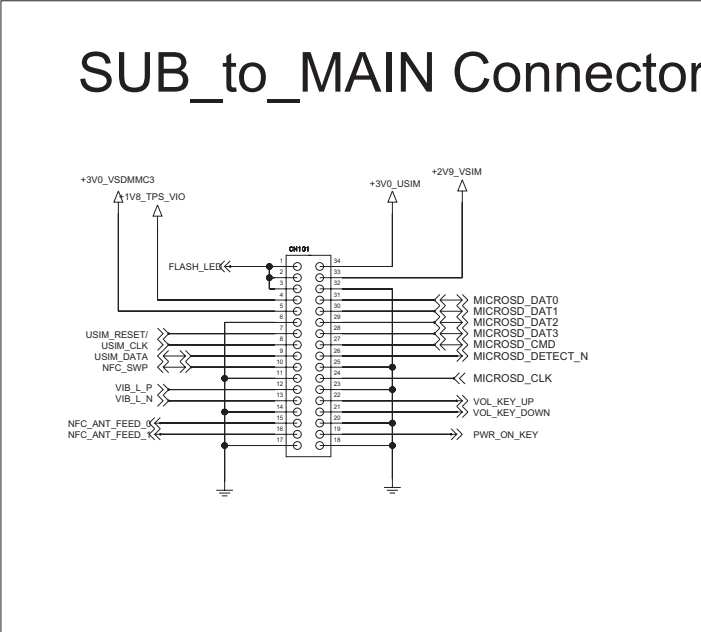




## NFC

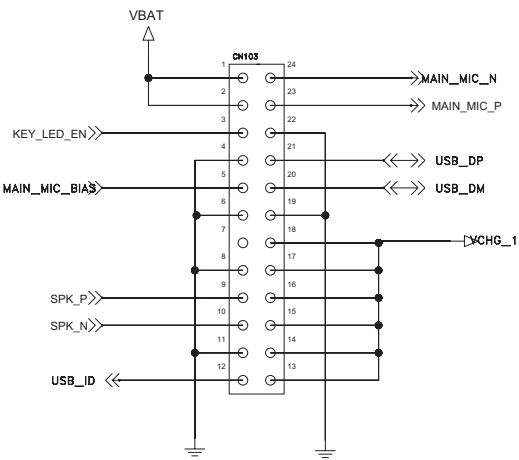


[SUB\_PCB]

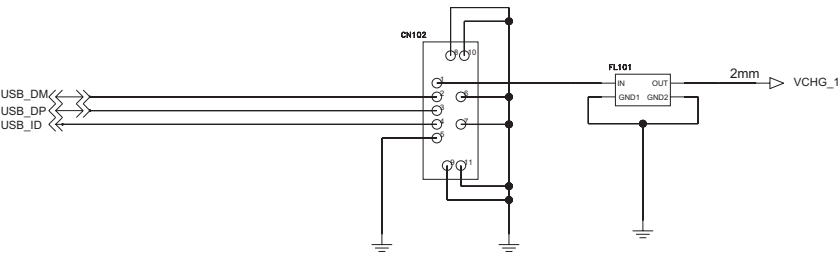


[LOWER\_FPCB]

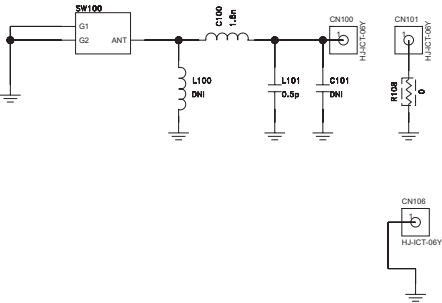
LOWER\_PCB\_\_CONNECTOR



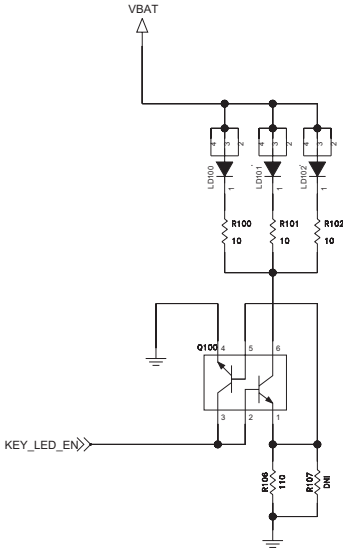
uUSB 5 pin connector



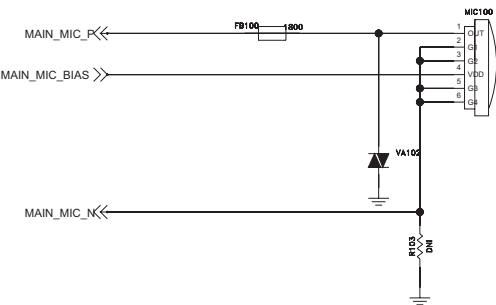
MAIN\_FRONT\_END



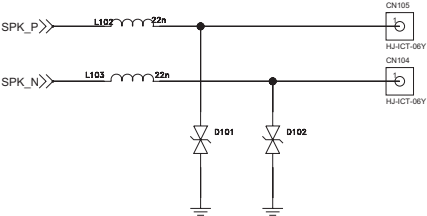
MAIN KEY LED



Main MIC



SPEAKER



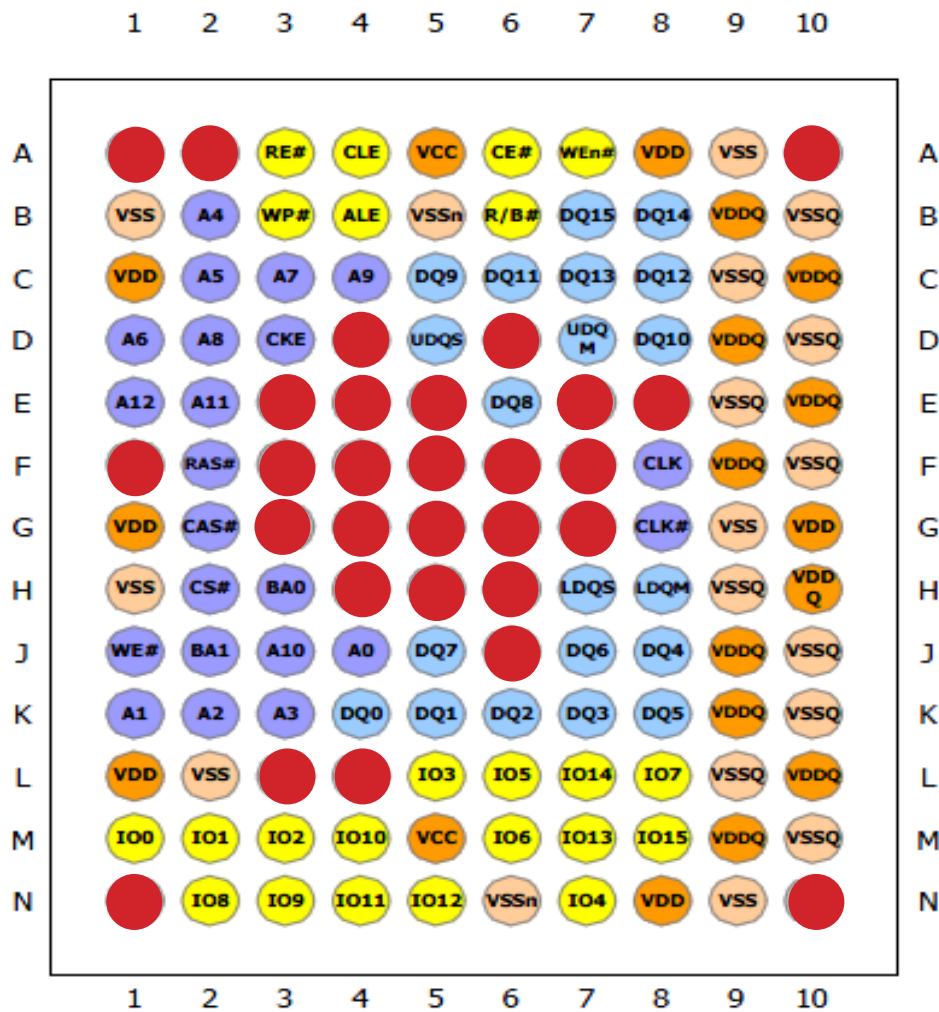
## 8. BGA PIN MAP

PMB5712(EUSY0432901)

	1	2	3	4	5	6	7	8	9	10	11	12	13	
A	NC	PM_H	GND	PM_L		VDD1V8_TXDCO	GND	M1	VDD0BA_T	CEXT_XO	XO	TESTPIN1		A
B	VDD0BA_T_TXIRF	VDD0_TXRF	NB	NB		NB	NB		D2B_OUT	AFC_DATC	XO_SUP	TESTPIN2	VDD1V8_SCU	B
C	PA_RF	D2B_OUT_TXIRF	GND	CEXT_TXMS	VDD2V5_TXBIAS	VDD2V5_TXDCO	GND	GND	VDD1V8_DIG	GND	GND	D13_TX_DAT	D13_RX_DAT	C
D	PA_POW_DET	VDD1V8_FBR	SPL_CLK	SPL_DRW	VDD1V8_TXLO	NB	NB	CEXT_TXPLL	GND	VDD2V5_FSYS	NB	D13_TX_DATX	D13_RX_DATX	D
E	GND	RX_L1	VSP1	SPL_SS	GND	GND		VDD1V8_TXMS	VDD0_TEST	NB	NB	VDDIO	REF_CLK_EN	E
F	RX_L2	RX_L1X	VDD1V8_RCBB	GND	GND	GND	VDD1V8_RCMS	GND	VDD1V2_DIG	GND	NB	SYS_CLK_EN	SYS_CLK	F
G	RX_L2X	RX_M1	GND	GND	VDD1V8_RCLO	GND	GND	GND	GND	GND	NB	FSYS1_EN	FSYS1_EN	G
H	RX_M2	RX_M1X	GND	GND	GND	GND	NB	NB	CEXT_RXPLL	GND	NB	FSYS2_EN	FSYS2_EN	H
J	RX_M2X		GND	VDD2V5_RCBB	VDD2V5_RCRF	GND	GND	VDD2V5_RXDCO	GND	GND			FSYS3_EN	J
K	RX_H2		NB	NB	GND	GND	NB	NB	VDD1V8_RXPLL	GND	GPO7	RESET_N	CLK_ON	K
L	RX_H2X	VDD1V8_RCRF	GND			RD_H	RD_HX	GND	VDD1V8_RXDCO	VDD2V5_RFC	GND	GND	VDD1V8_RFC	L
M	NC	GND					GND	GPO4			PA_BIAS	PA_RAMP	NC	M
	1	2	3	4	5	6	7	8	9	10	11	12	13	

 Not Used

### H9DA1GH25HAMMR-4EM NAND/1G SDRAM/256M CP Memory (EAN62327101)



● Not Used



## 8. BGA PIN MAP

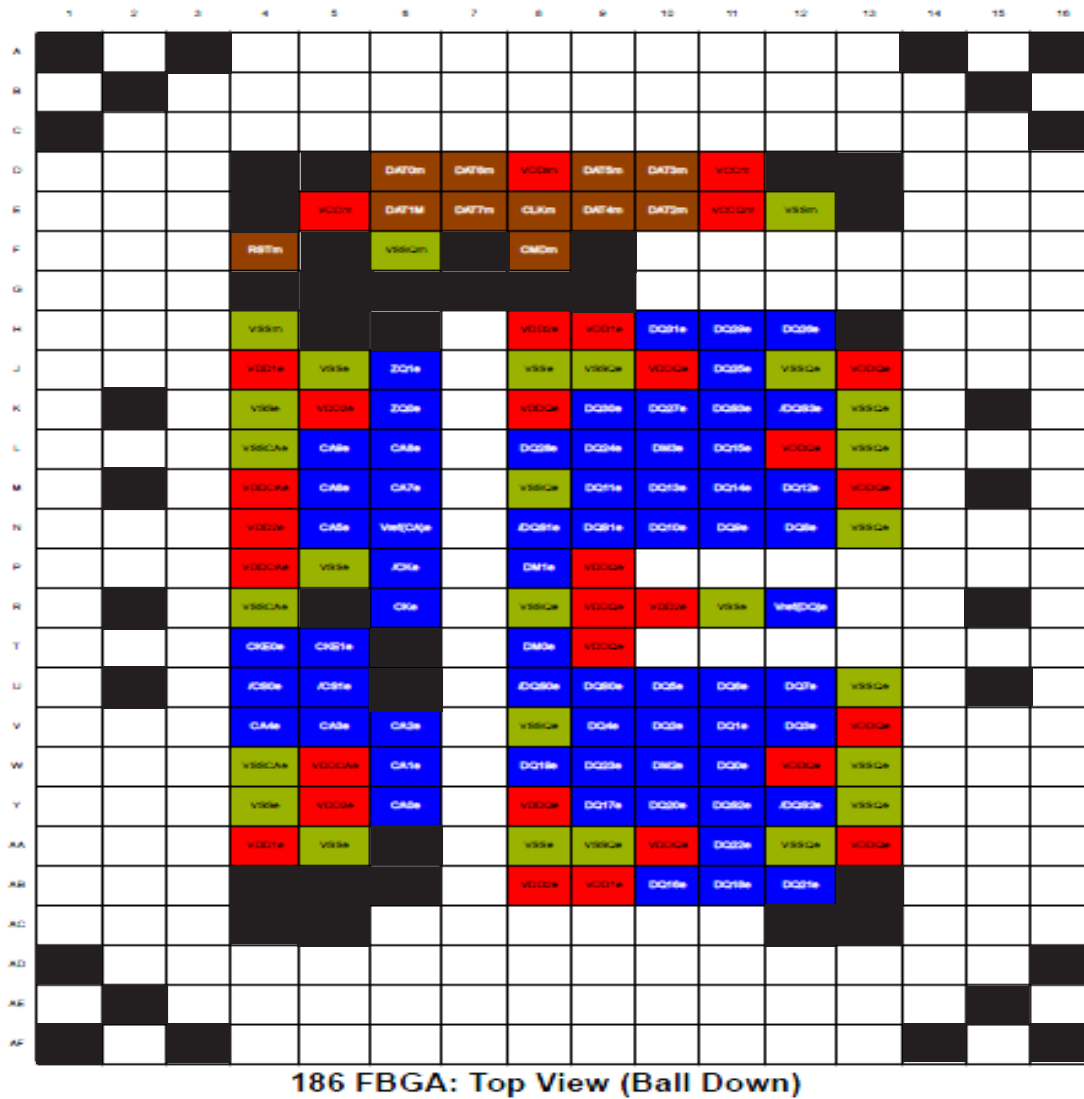
### XMM6260(EUSY0432001)

**XG626 Ball Map (Top View) 6/15/2010 7.5x7.5 FBGA**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
A		SD1_SW	SD1_SW	VDD_VBATT_SD1	VF11	PCDP_RE	MEM_AD_9	MEM_A_4	MEM_A_3	MEM_A_2	MEM_A_1	MEM_BC9	MEM_A_0	MEM_SDC_LK0	MEM_EFC_LK0_1	MEM_A_5		A
B	VSS_SD1			VIO_12		DSP_AUD	MEM_CAS_0_JN1	FWP	MEM_A_6	MEM_BC2	VDD_R1H	MEM_WB	MEM_ED	MEM_CK	MEM_EFC_LK0_0		MEM_A_9	B
C	VDD_VBATT_SD1	SD1_FB	VDD_VSD2	VUSE_FD					MEM_A_7			MEM_A_5					MEM_A_10	C
D	SD1_SW		SD1_FB					MEM_AD_3	VSS	MEM_AD_7	MEM_AD_11	MEM_AD_12	MEM_AD_13	VSS			MEM_A_11	D
E	SD1_SW			VSS				MEM_AD_5	MEM_AD_6	VDDCORE	MEM_AD_8	VDDCORE_EB1	VDDCORE	MEM_RAS			MEM_A_12	E
F	VSS_SD1	VUSE_ANA	VDD_VBATT_PMU	VRTC				MEM_AD_4					MEM_AD_15	VSS	VDD_I0H	MEM_BC1	MEM_A_13	F
G	VSSIM	VPMU						VSS	MEM_AD_2	MEM_AD_V_0	MEM_AD_1					MEM_BC2	MEM_A_14	G
H	VUSE_IO	GN1	AGND					RESERVE_D	VDDCORE	MEM_AD_10	MEM_AD_0						MEM_A_15	H
J	VREF		RESET_P_WDRWN_N	M0	M1	M2		VSS			VSS	MEM_AD_16	MEM_CS1	MEM_CS0			VDD_I0H	J
K	ETM11_T_RACEPKT_7		REF_CLK_EN	ETM11_T_RACEPKT_6		ETM11_T_RACECLK	VDD_R1H	VDDCORE	ENET3	VDD_R1H		VSS	VDDCORE		VDD_MUP	MEM_WA1T_0		K
L	ETM11_T_RACEPKT_1	ETM11_T_RACEPKT_3		ETM11_T_RACEPKT_2	ETM11_T_RACEPKT_6		MMCH1_C_MD	VDD_MW_C	ETM11_T_RACEPKT_5	VSS	MEP1_INL_TX_FLG			VSS		VSS	F32K	L
M	ETM11_T_RACEPKT_0							ENET2	ENET3							VSS	OSC32K	M
N	I2S2_CLK_0			T_OUT9	MMCH1_C_D			VTF	IC1_SCL	VDD_R1H				VSS_VSB			VDD_R1H	N
P	I2S2_RX	I2S2_TX	T_OUT1				HW_MGN_2	VSS	IC1_SDA	CLKOUT2	VSS_P13	VSS_CLK		VDD_USB_ANA		VBUS		P
R	I2S2_WA0	I2S2_WA1		NC		HW_MGN_1		VDDCORE	VSS			VDD_F11				VDD_USB_D	USE_DNB_NIS	R
T		USIF1_RX_D_MSTR	USIF1_TX_D_MSTR	TRST_B	TRST_IN	TCK	DO_TX_D_AT	DO_TX_D_ATX	ARESET_N	VDD_HG_RF		VDD_SIM	CC_30	CC_RST	VDD_USB_D	USE_TUN_E	USE_RPL_IS	T
U			USIF1_RT_N_N	TDO	TDI	TMS	DO_RX_D_AT	DO_RX_D_ATX	SYSCLOCK_N			HSIC_USB_STEB	HSIC_USB_DATA	CC_CLK	VDD_I0H	VSS		U
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	

 Not Used

**U701 EDB8164B3PF-8D-F 8Gb LPDDR2 PoP**



■ Not Used

## 8. BGA PIN MAP

### BCM4330XKFFBG (EAN61956801) WIFI

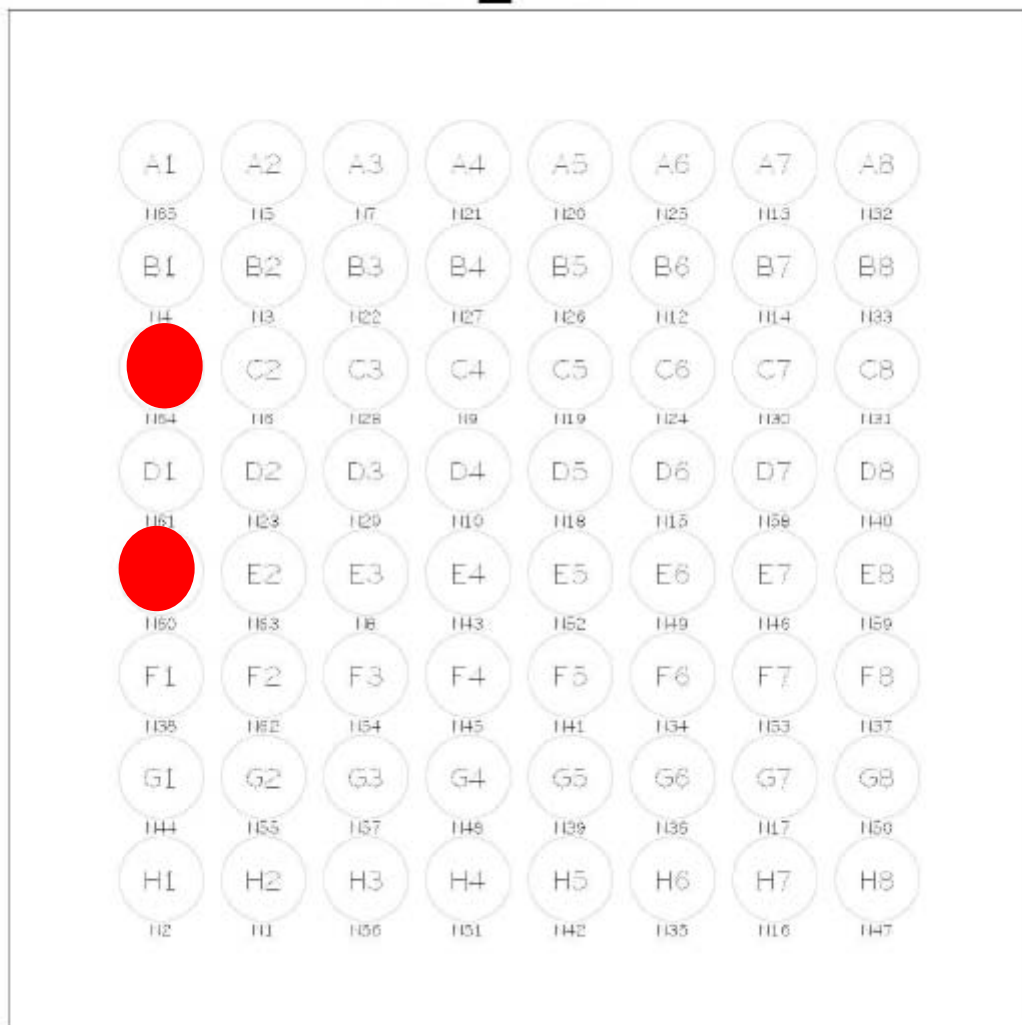
	12	11	10	9	8	7	6	5	4	3	2	1	
A	FM_AOUT1	BT_VCONDDIP2	BT_FDVSS	BT_RF	BT_PAVDDIP2	WRF_BRIN_2G	WRF_RFOUT_2G		WRF_VDDPA		WRF_BROUT_5G		A
B		BT_PLVDDIP2	BT_RFVSS	BT_BPVDOP2	BT_IPVDOP2	WRF_VDDANA_IP2_2G	WRF_PA_GND		WRF_PA_GND		WRF_PA_GND	WRF_BRIN_5G	B
C	FM_TX	FM_VSSAUDIO	BT_FILVSS	BT_VSS	BT_IPVSS	WRF_GNDANA_2G		WRF_GND	WRF_PADRV_GND	WRF_PADRV_VDD		WRF_ANA_GND	C
D	FM_RXIN	FM_RXP	FM_VDDAUDIO	BT_GPIO_1			BT_UART_TXD			WRF_LOGEN_A_GND	WRF_LOGEN_A_VDDIP2	WRF_VDDANA_IP2	D
E	FM_RFVDDIP2	FM_RXVSS	FM_VDDPULIP2	BT_CLK_REQ_MODE	BT_VDDC	WL_VDDC	BT_UART_RXD	WL_VSS_2	WRF_GPIO_OUT	WRF_RES_EN		WRF_VDD_VDDO_IN_IP2	E
F		FM_VSSVCO	FM_PLVSS	BT_GPIO_0	BT_VSSC	BT_VDDIO	BT_UART_RTS_N	ITAG_SEL	WRF_AFE_GND	WRF_TCKD_VDD	WRF_VCOOLD_OUT_IP2	WRF_VCO_GND	F
G	BT_CLK_REQ_OUT				BT_GPIO_7	BT_QS_OH	BT_UART_CTS_N	WL_GPIO_1		WRF_TCKD_IN		WRF_XTAL_OP	G
H						BT_I2S_DO	BT_PCM_CLK				WRF_XTAL_GND	WRF_XTAL_ON	H
J	VOUT_IP2	VOUT_IP1			WL_GPIO_4	LPO	BT_PCM_IN	BT_PCM_OUT	RF_SW_CTRL_5		RF_SW_CTRL_1		J
K	SR_VDDBAT1	SR_VDDBAT2	BT_REG_ON	EXT_SMPS_REQ	BT_VDDC		BT_PCM_SYNC	RF_SW_CTRL_0	RF_SW_CTRL_7	RF_SW_CTRL_4	WL_VSS_0		K
L	SR_VDDBAT1	PMU_AVSS	VOUT_LNDDO1	WL_REG_ON	SDIO_DATA_3	SDIO_CMD	WL_GPIO_5		RF_SW_CTRL_2	VDDIO_RF			L
M	SR_VLX	SR_PVSS	VIN_LDO	VOUT_CLDO	SDIO_DATA_1	SDIO_CLK	SDIO_DATA_0	SDIO_DATA_2	RF_SW_CTRL_3	WL_VDDO	HSIC_STROBE	HSIC_AVSS	M
	12	11	10	9	8	7	6	5	4	3	2	1	

■ Not Used

### SSD2825G44 (EAN62222401) RGB CONVERTER

#### SSD2825G44 Pinout Diagram – 64 WFBGA

### PIN\_OUT



**● Not Used**

## MAX77663 (EAN62216701) PMIC

eMGA Pinout Breakdown by Function

ROW/COL	1	2	3	4	5	6	7	8	9	10
A	IN_SD3	MON	OUT_LDO3	IN_LDO3-5	OUT_LDO5	IN_LDO2	OUT_LDO7	IN_LDO7-8	OUT_LDO8	XGND
B	IN_SD3	AVSD	OUT_LDO4	IN_LDO4-6	OUT_LDO6	OUT_LDO2	OUT_LDO0	IN_LDO0-1	OUT_LDO1	XIN
C	LX_SD3	LX_SD3	MBATT	FB_SD3	EN1	EN2	EN0	ACOK	XGND	XOUT
D	PG_SD3	nIRQ	FB_SD2	D_SD3	GND	GND	GND	FB_SD1	32K_OUT	BBATT
E	PG_SD2	SCL	INI2C	GND	LID	GND	GND	SNSN_SD1	SNSP_SD1	SHDN
F	PG_SD2	SDA	GND (SNSN_SD4)	GND (SNSP_SD4)	FB_SD0 (FB_SD4)	FB_SD0	SNSP_SD0	SNSN_SD0	nRST_IO	PG_SD1
G	LX_SD2	LX_SD2	GPIO4		GPIO_INB	GPIO_INA			LX_SD1	LX_SD1
H	IN_SD2	INB_SD0 (IN_SD4)			PGB_SD0 (PG_SD4)	PGA_SD0 (PG_SD0)	GPIO1		INA_SD0 (IN_SD0)	IN_SD1
J	IN_SD2	INB_SD0 (IN_SD4)	LXB_SD0 (LX_SD4)	LXB_SD0 (LX_SD4)	PGB_SD0 (PG_SD4)	PGA_SD0 (PG_SD0)	LXA_SD0 (LX_SD0)	LXA_SD0 (LX_SD0)	INA_SD0 (IN_SD0)	IN_SD1

Ins in parenthesis ( ) are for the device where SD0 and SD4 operate as independent regulators.

■ Not Used

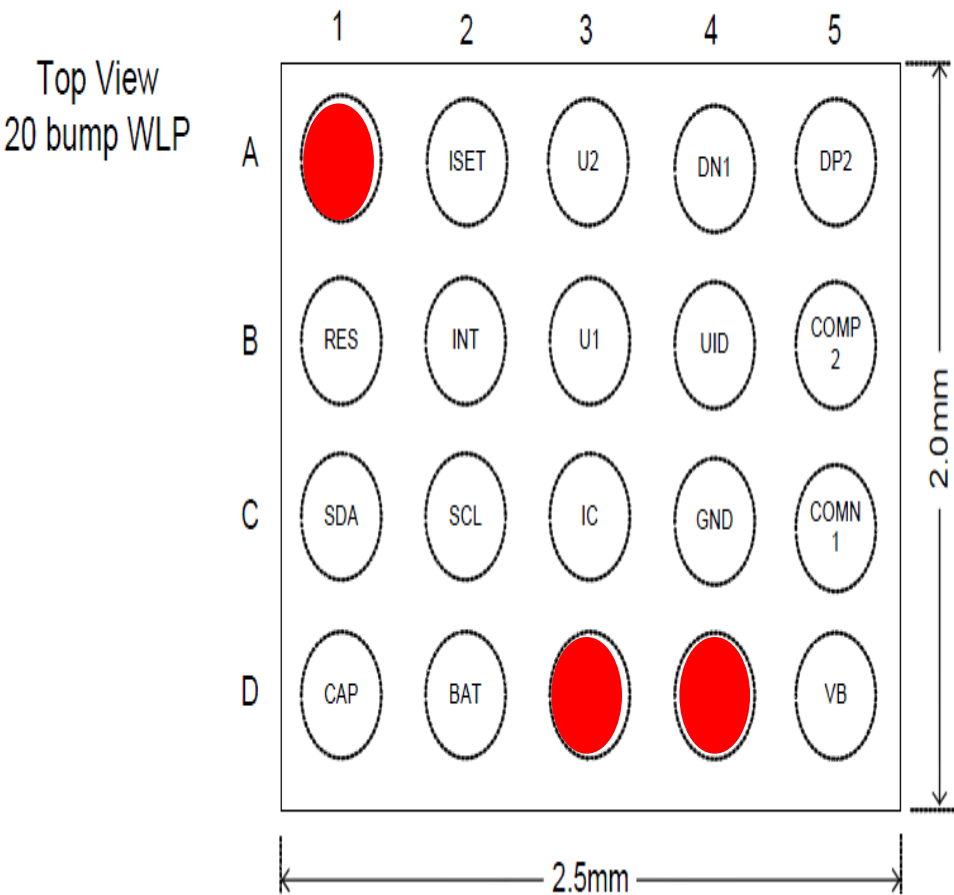
## PN544 (EUSY0397201) NFC

Ball A1  
index area

	1	2	3	4	5	6	7	8
A	●	○	○	○	○	○	○	○
B	●	●	○	○	○	○	○	○
C	○	●	●	○	○	○	○	○
D	○	○	○	○	○	○	○	○
E	○	○	○	●	○	○	○	○
F	○	○	○	○	○	○	○	○
G	○	○	○	○	●	○	○	●
H	○	○	○	○	○	●	○	○

● Not Used

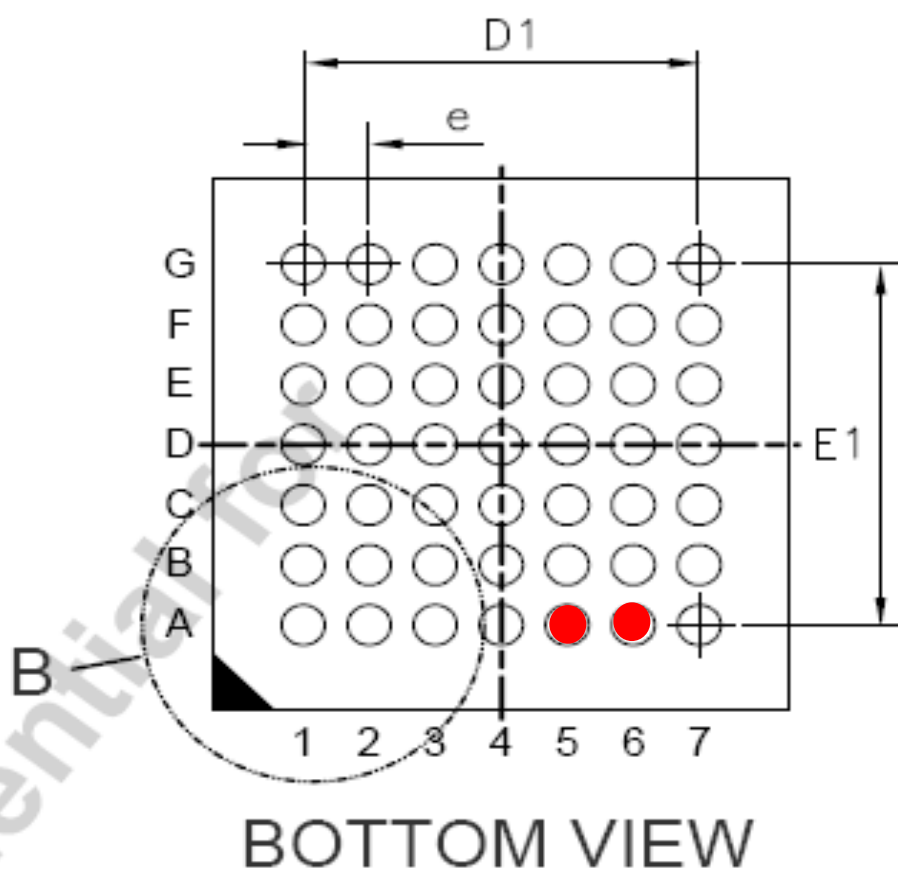
MAX14526 (EUSY0371201) MUIC



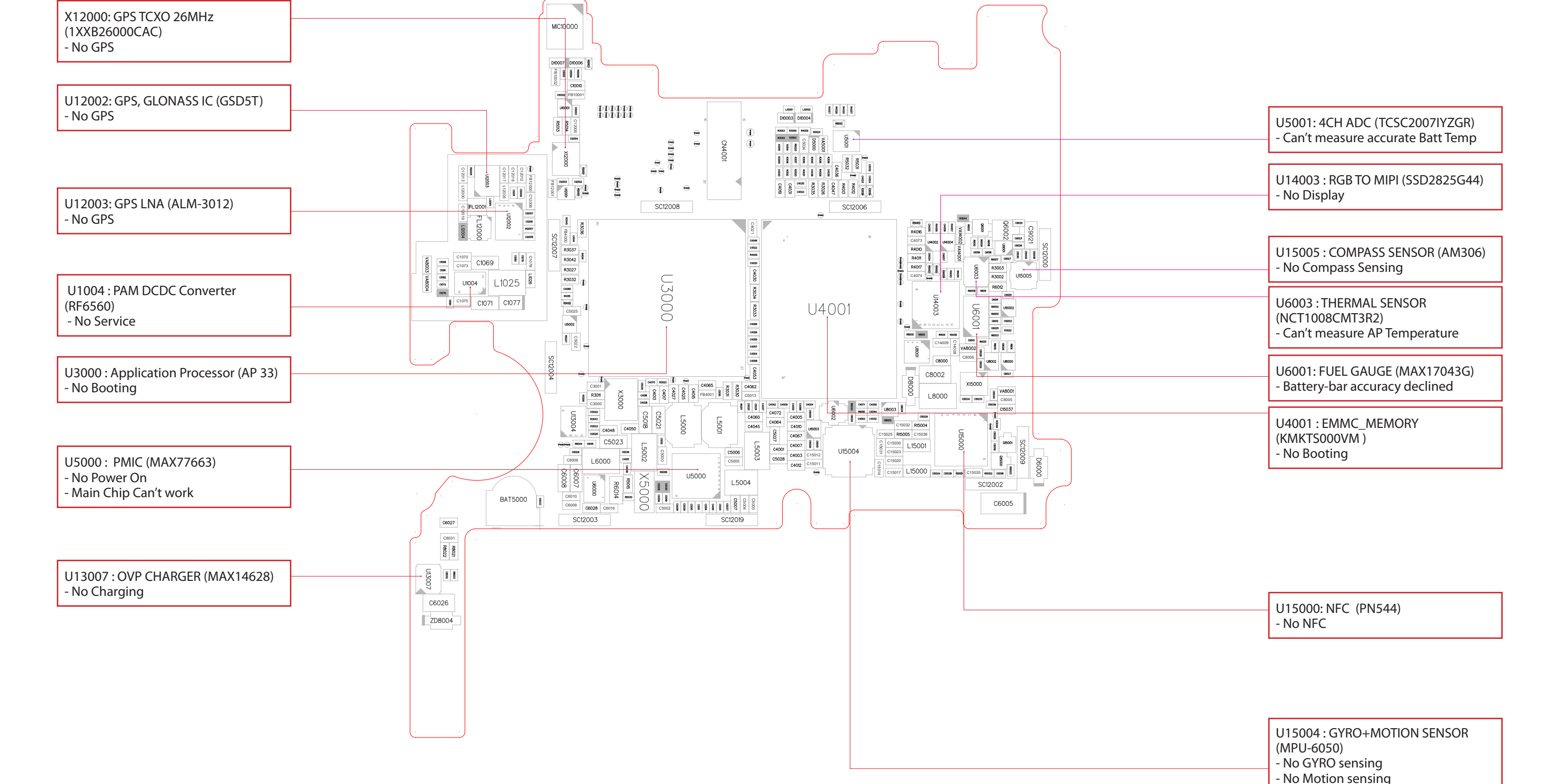
● Not Used



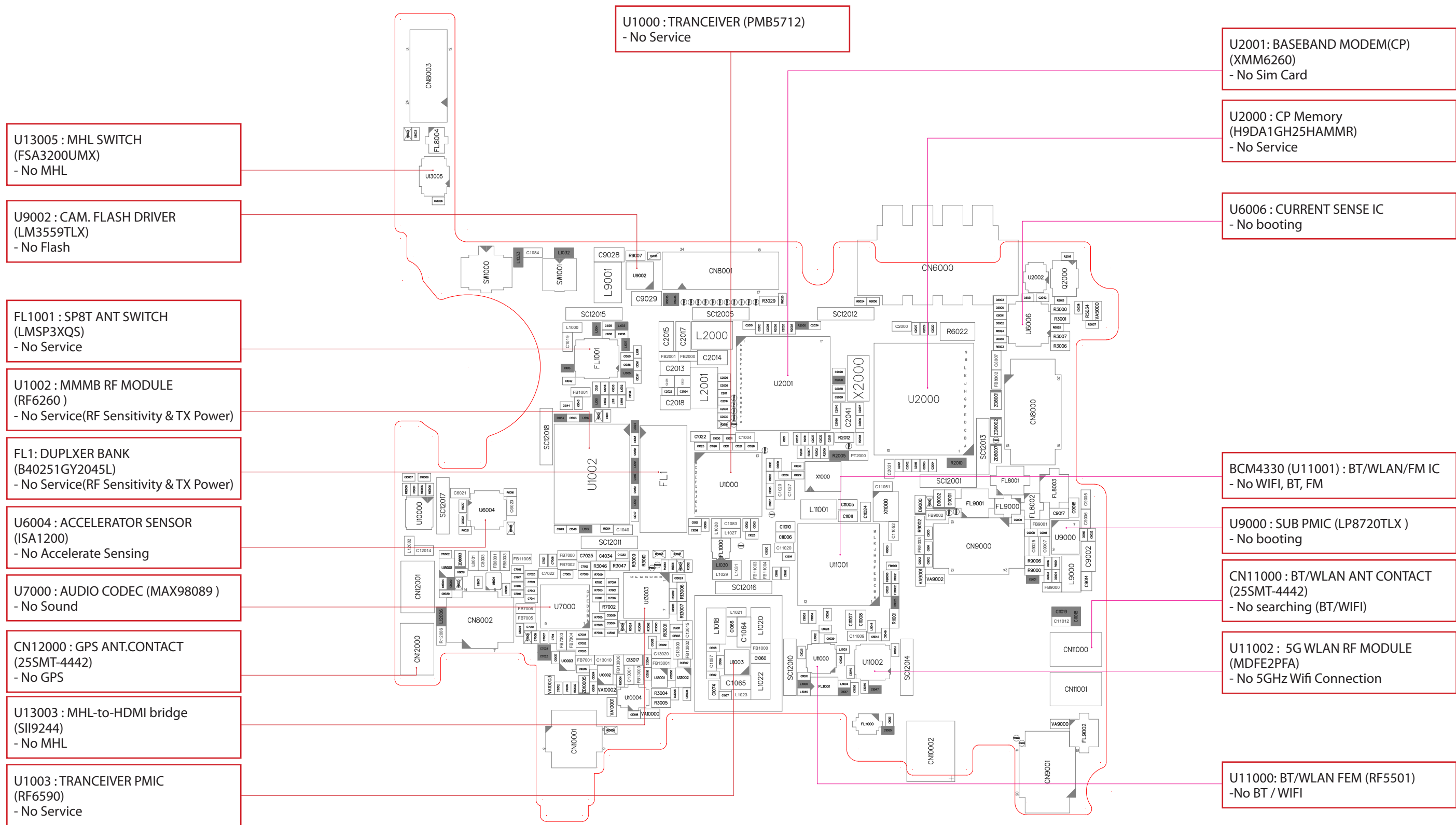
# MHL IC SiI9244



● Not Used



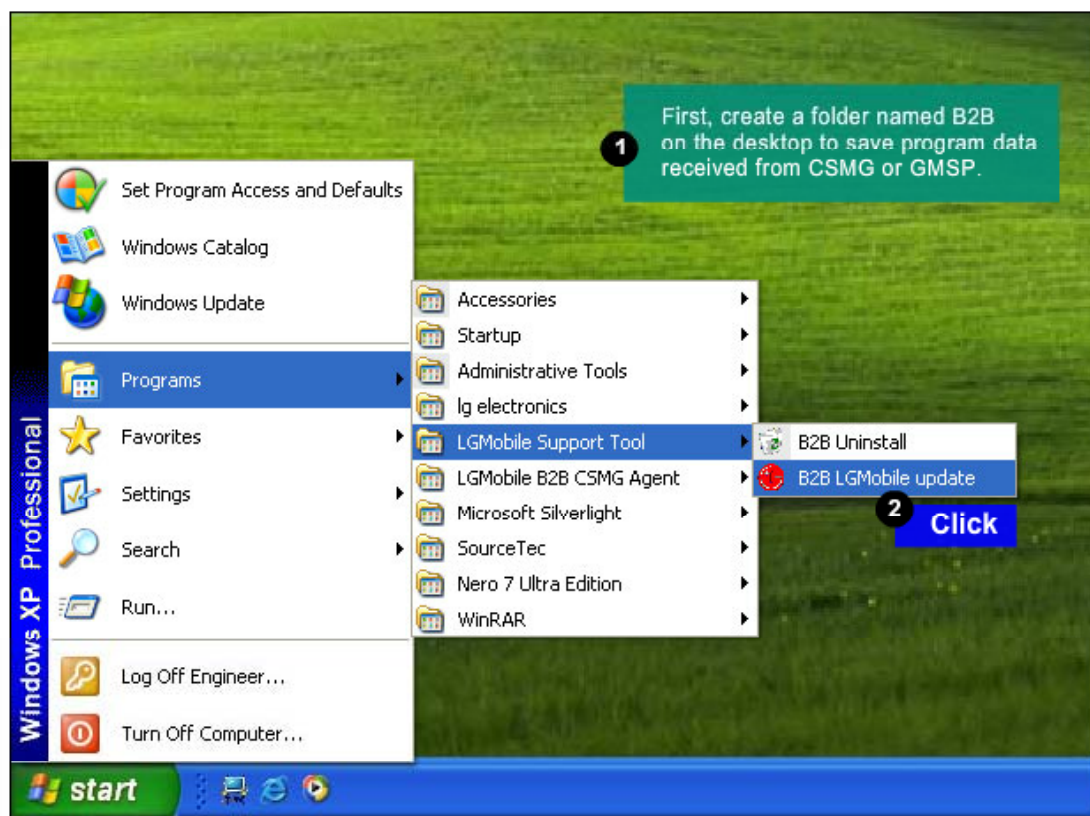
LG-P880\_MAIN\_EAX64732401\_1.1\_TOP

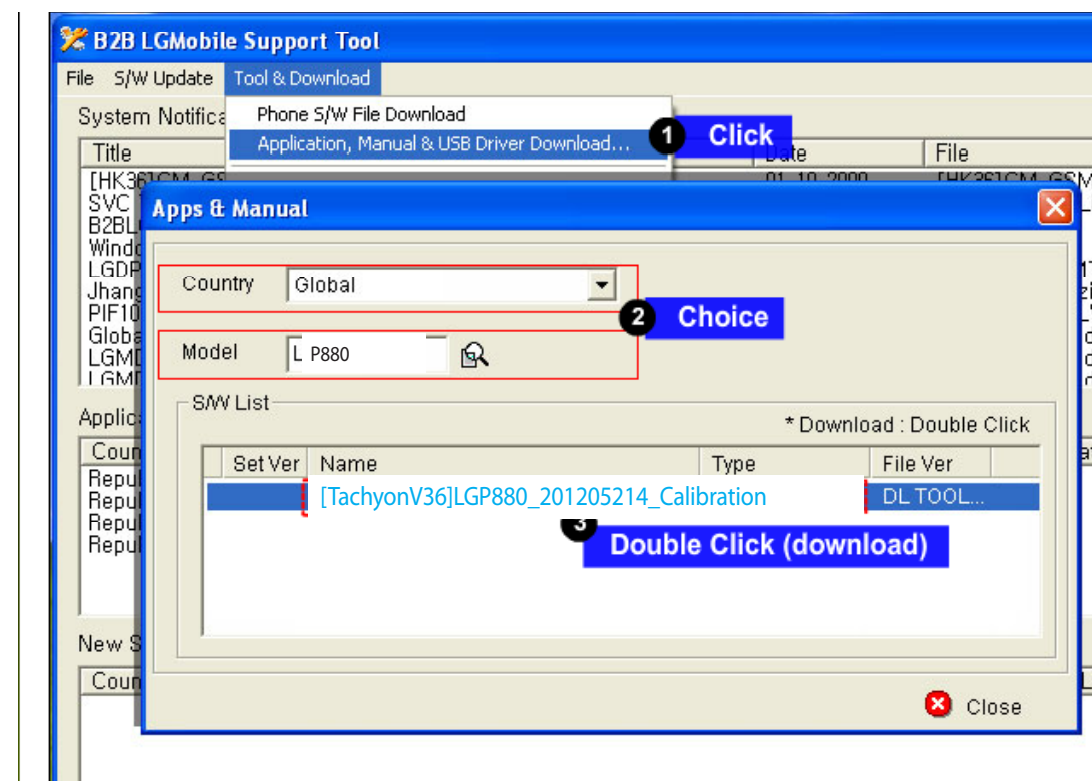
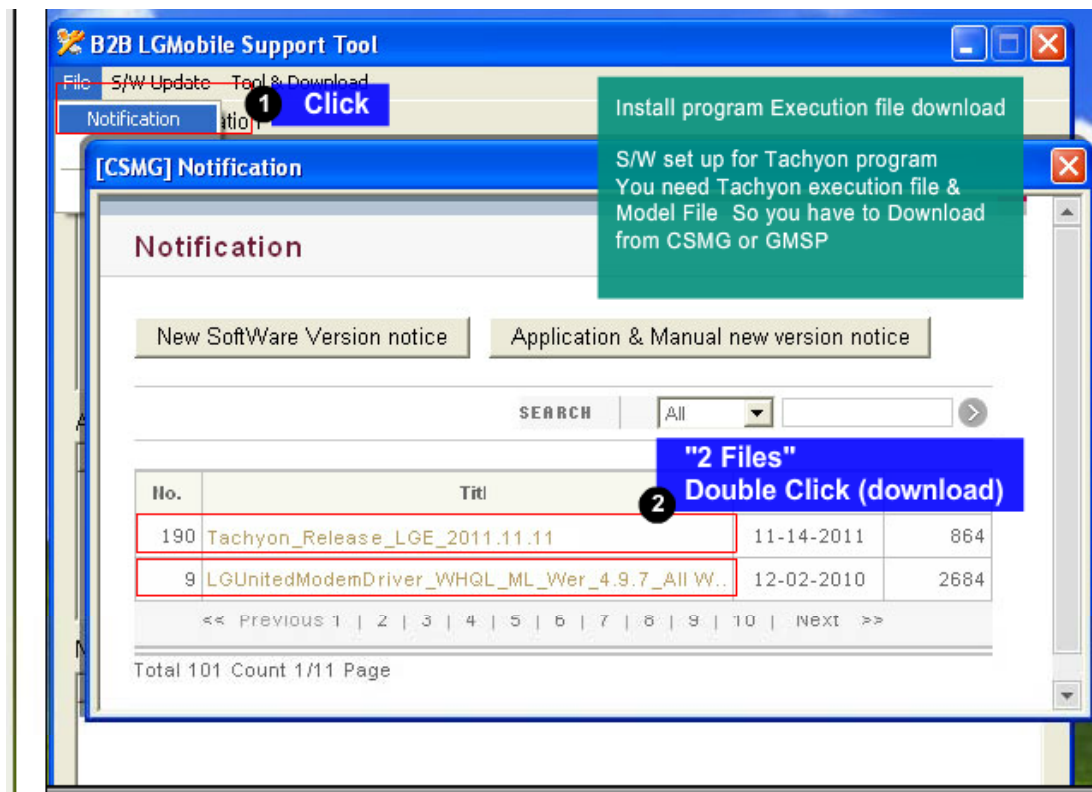


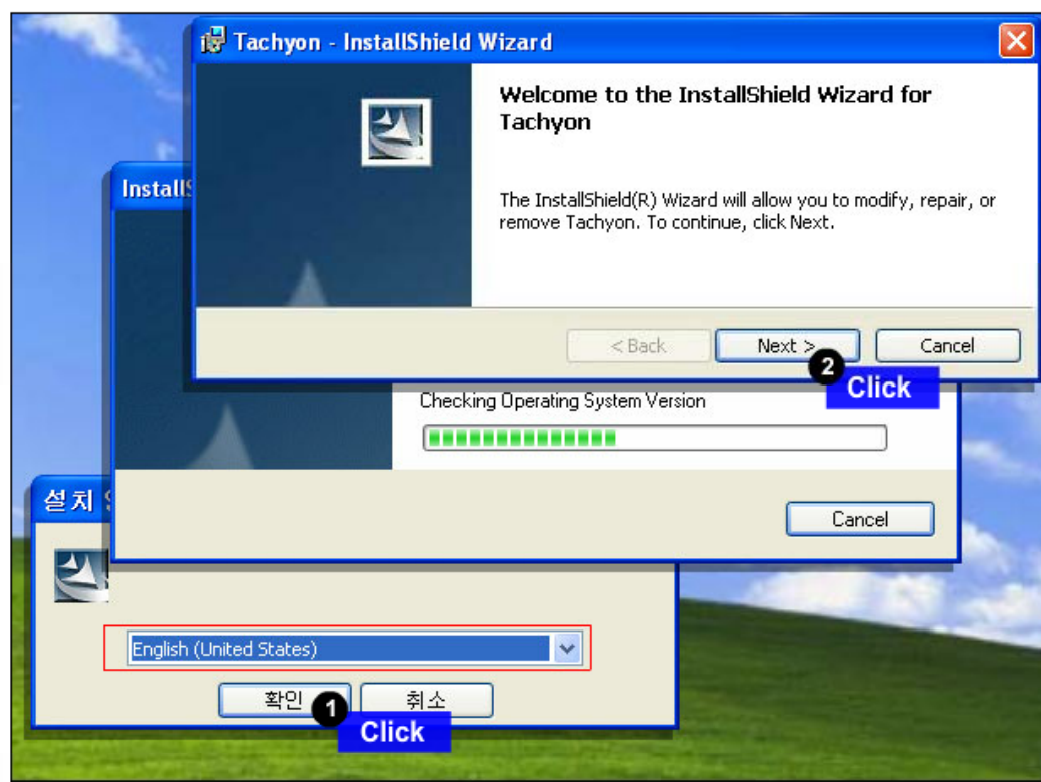
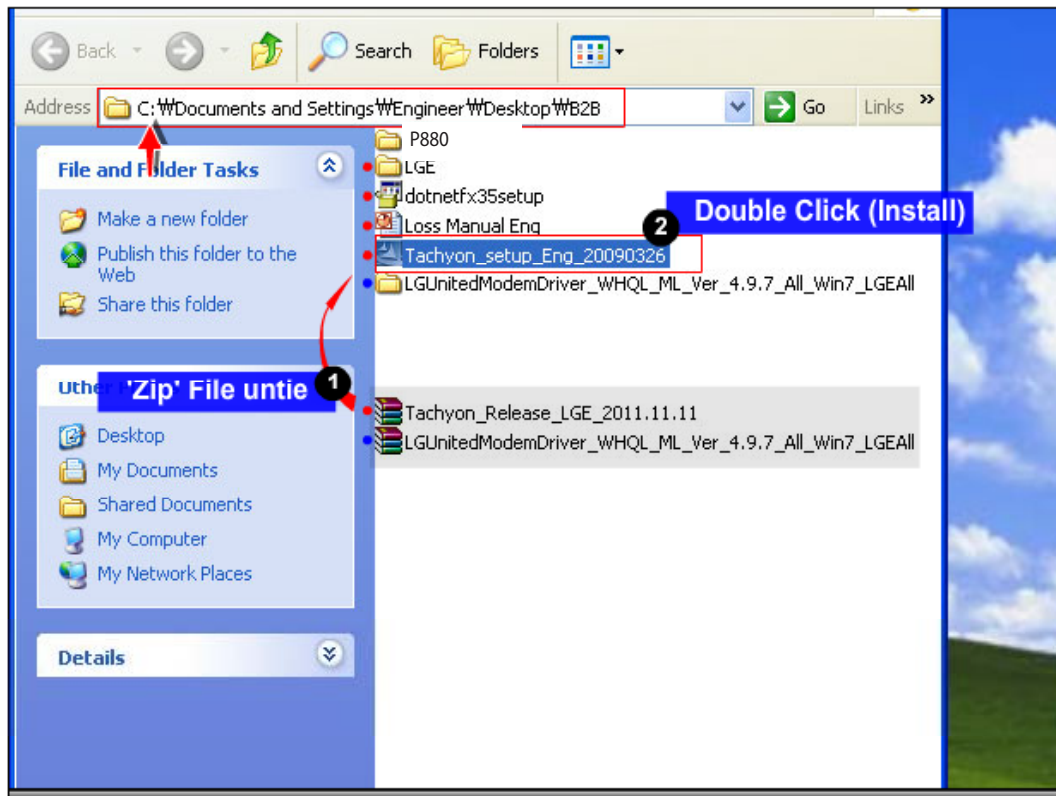
LG-P880\_MAIN\_EAX64732401\_1.1\_BOT

## 10. CALIBRATION

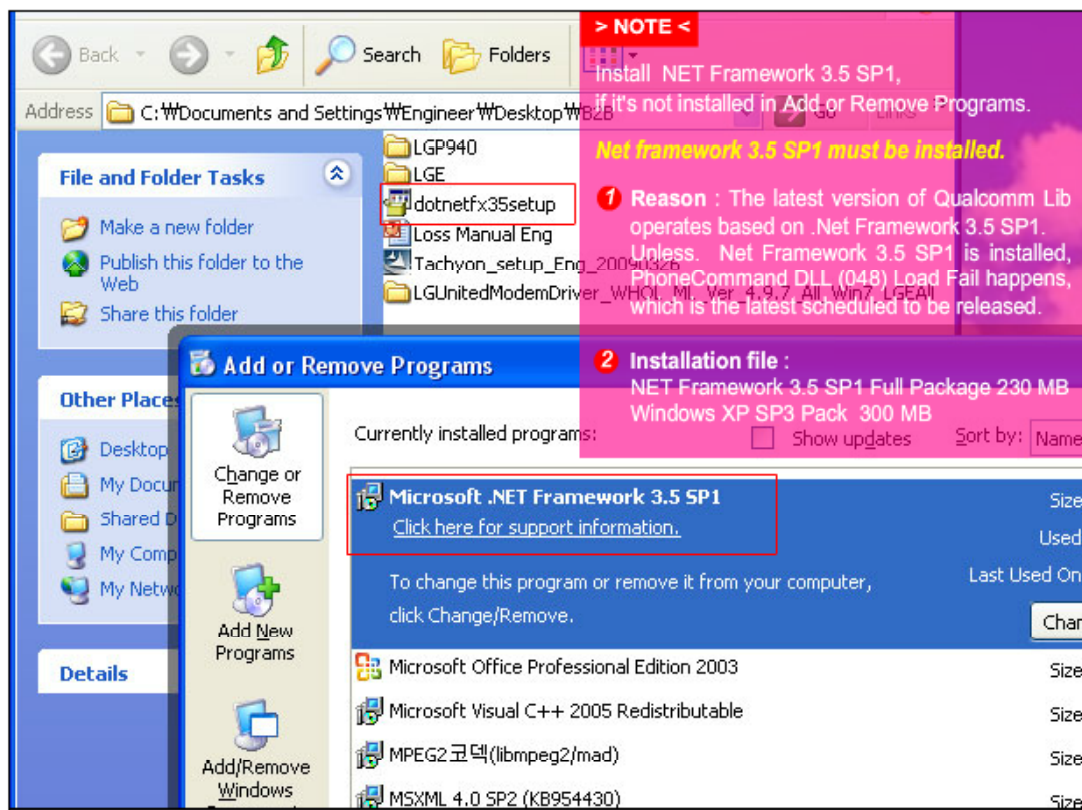
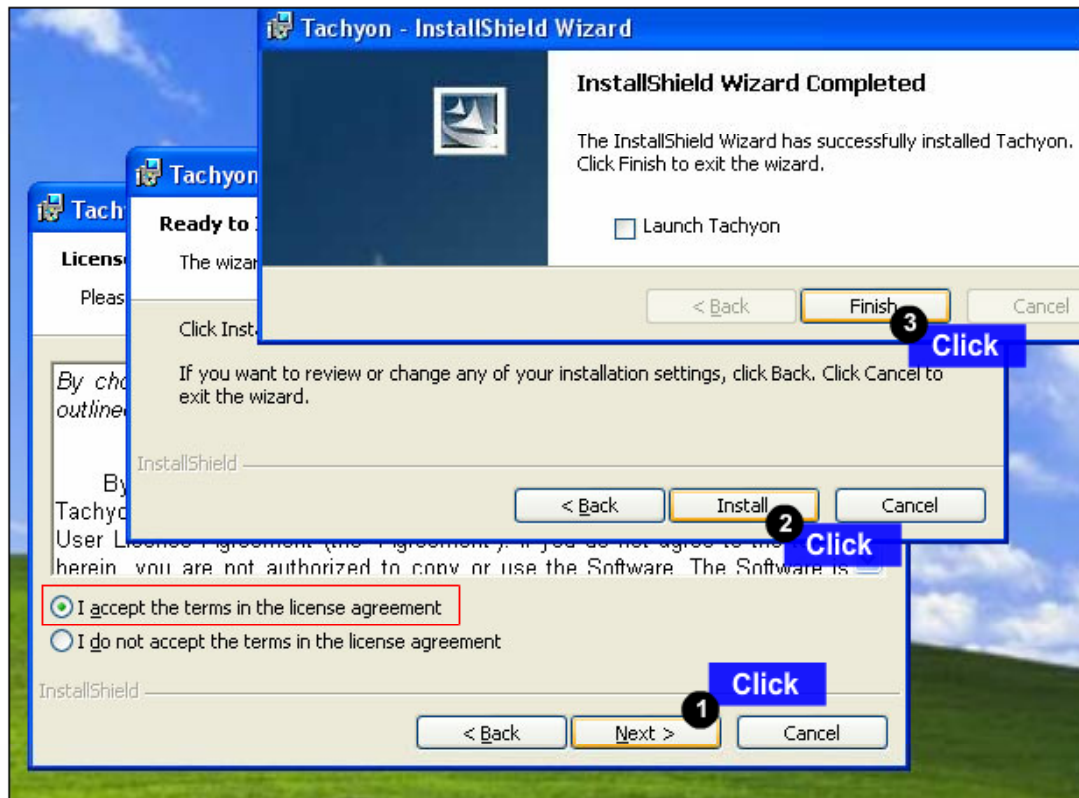
CAL INFORMATION		
S/W VERSION		
<a href="#">[TachyonV36]LGP880_201205214_Calibration</a>		
<b>Please Check the Version to "B2B"</b>		
H/W		
	Name	Part No.
PIF	PIF200(All Type)	BJAY0024021
USB Cable	USB Cable	RAD32247898
Power Cable	DC Power Cable	RAD32247878
I/O Cable	<a href="#">5P E-SATA_DC_Plug</a>	<a href="#">RAD32167861</a>
RF Cable_Main	<a href="#">MS-156C</a>	<a href="#">BJAY0024004</a>
Power Supply_PIF	Power Supply 5.3V	
Power Supply_Phone	Power Supply 5.0V	
RF Test Equipment	E5515C(8960)	



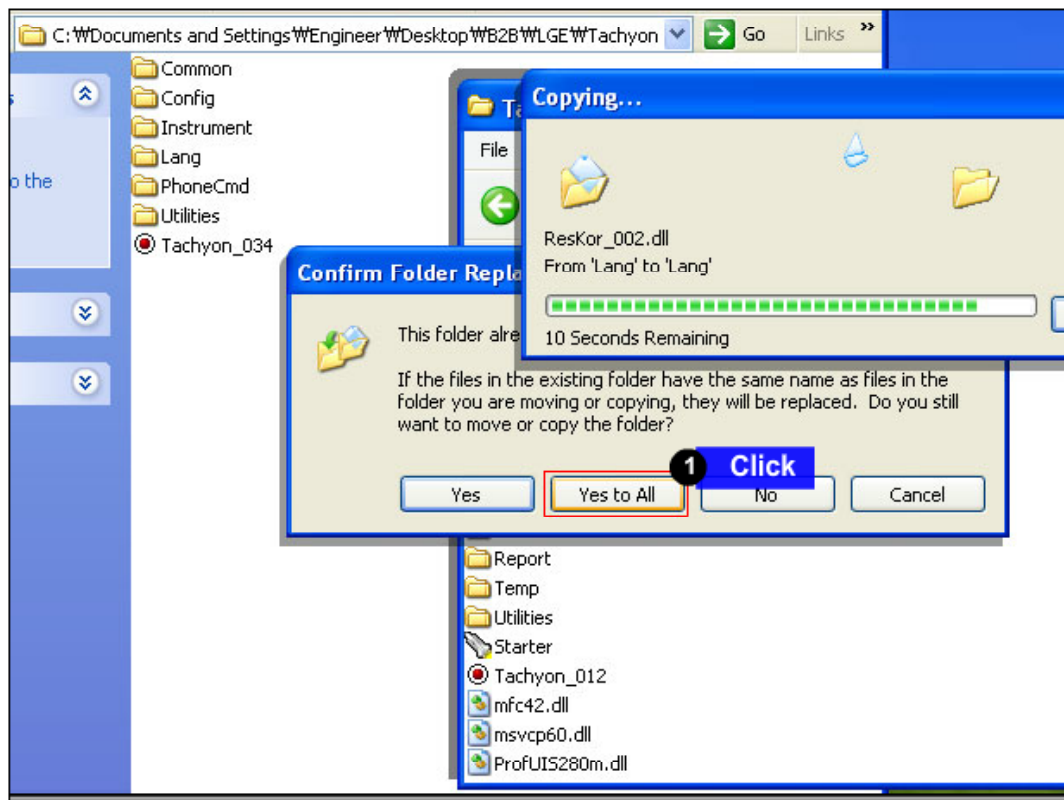
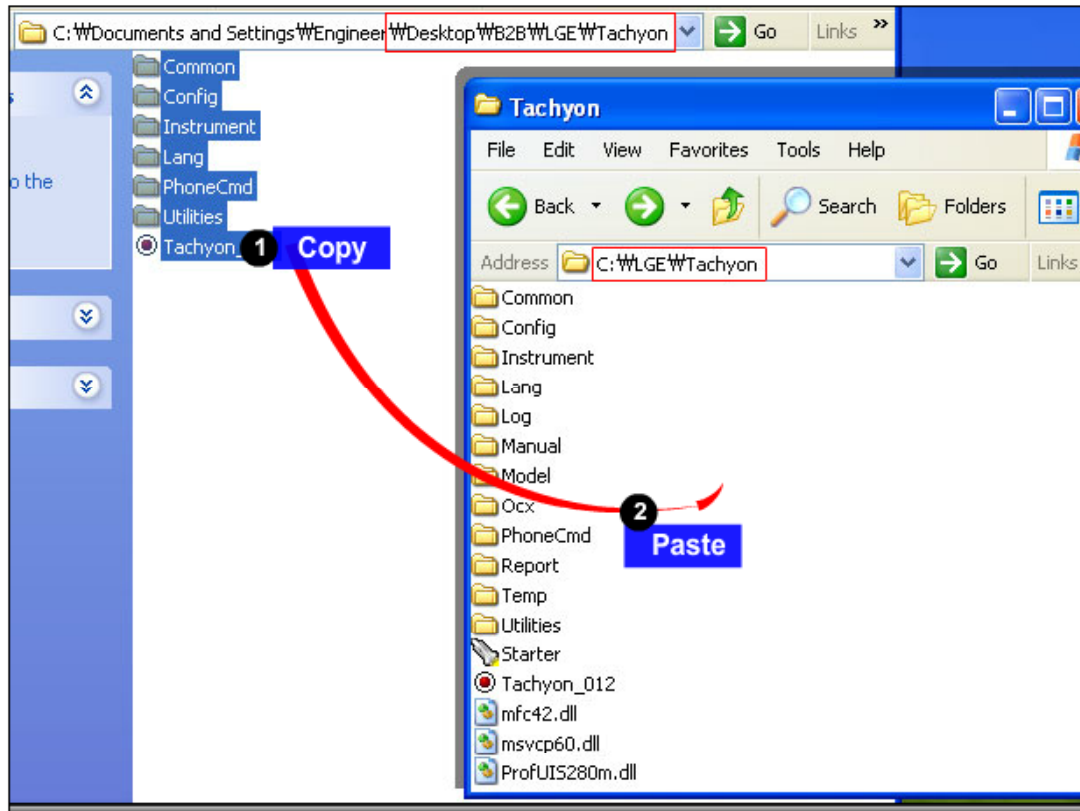


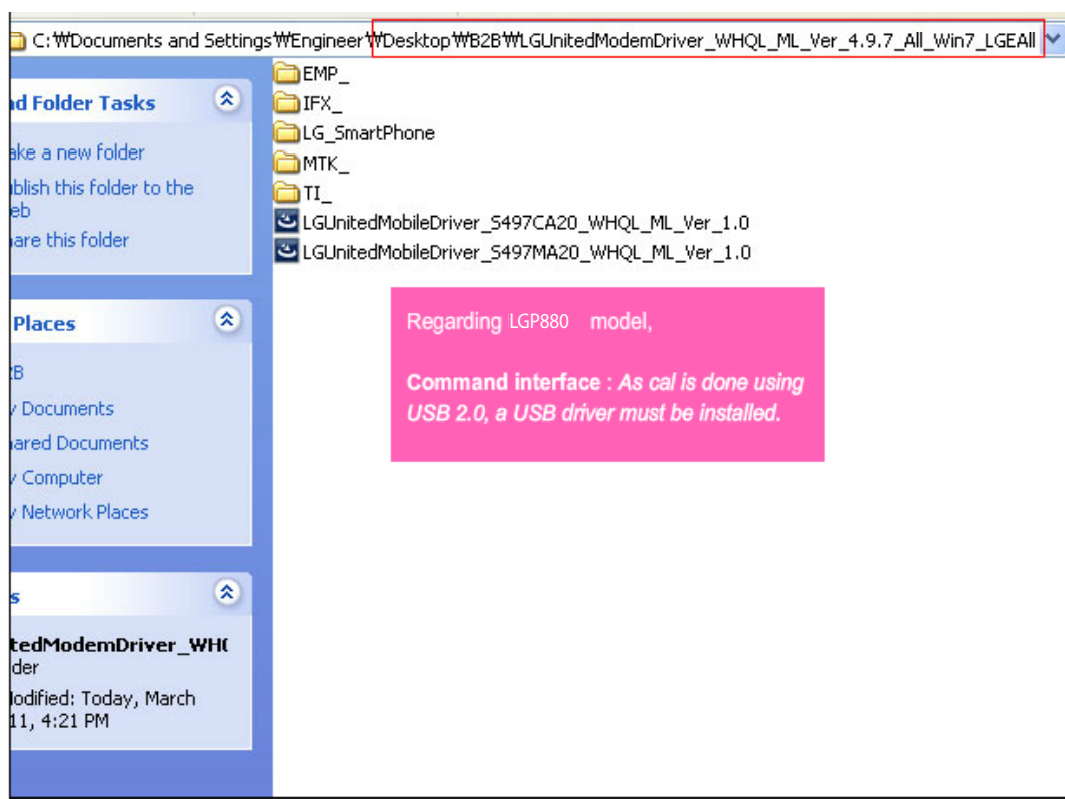
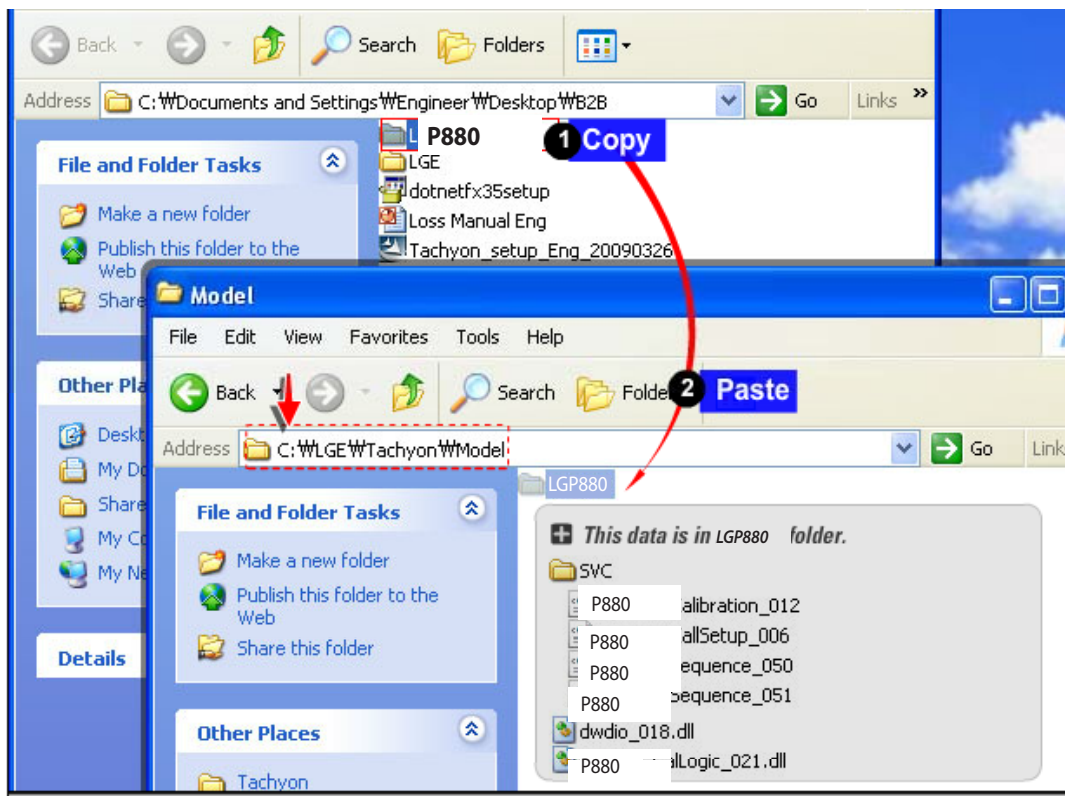


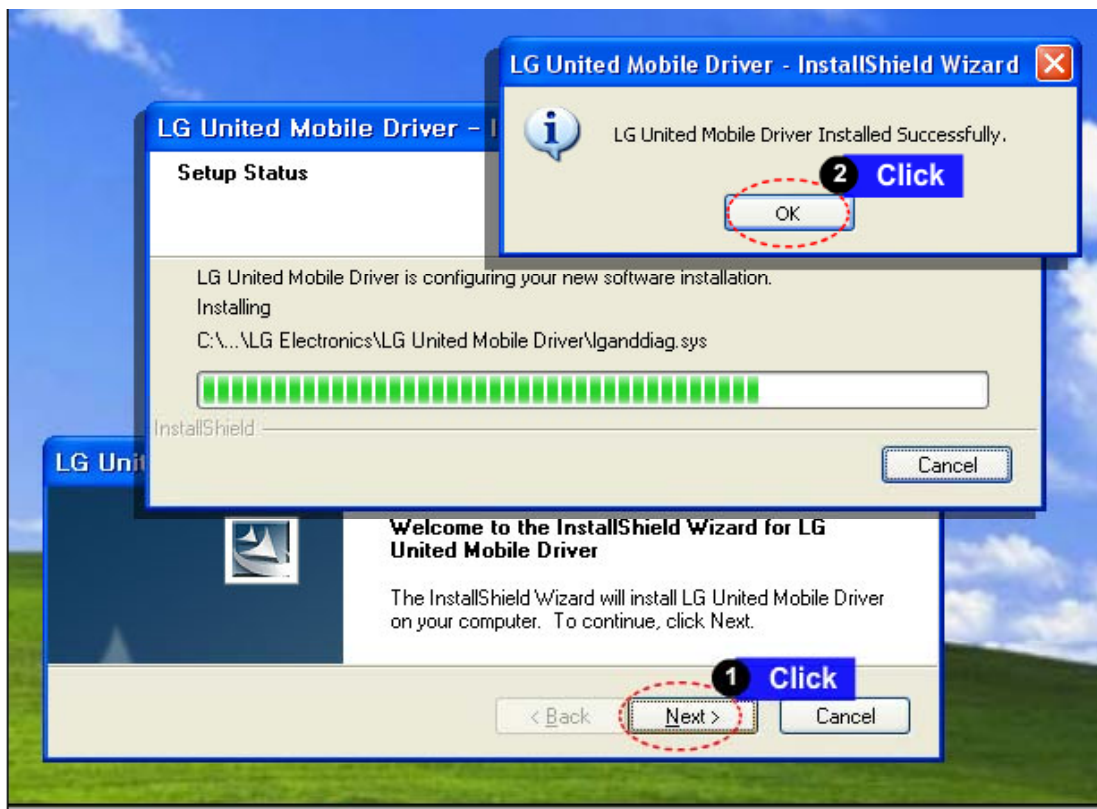
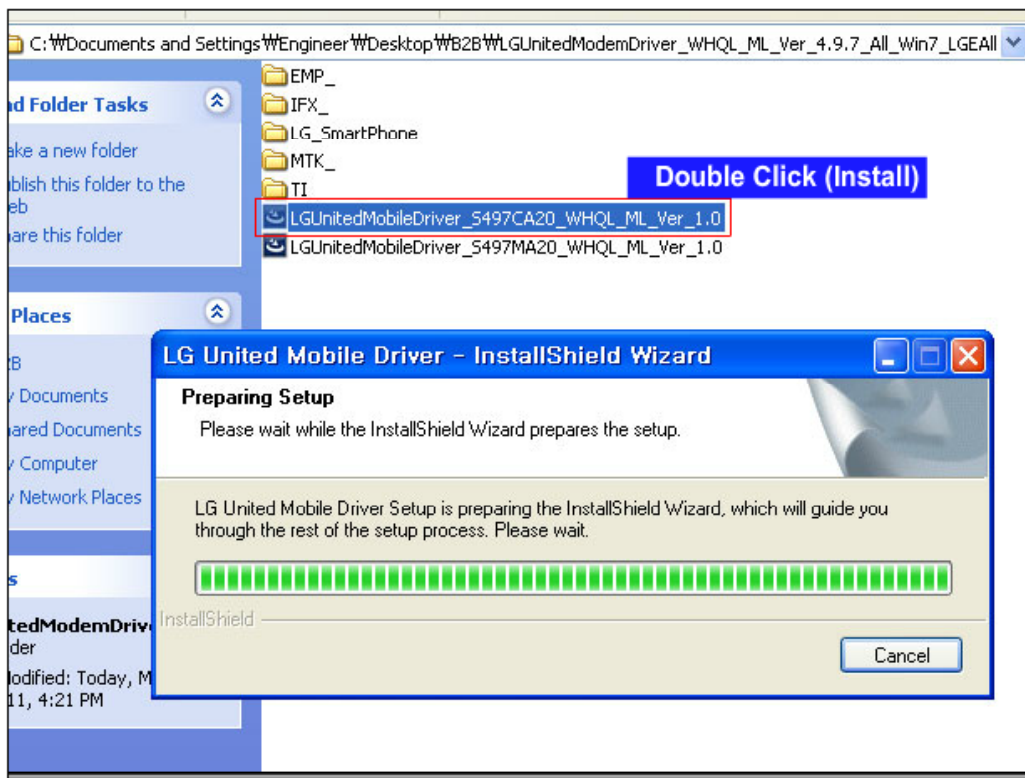


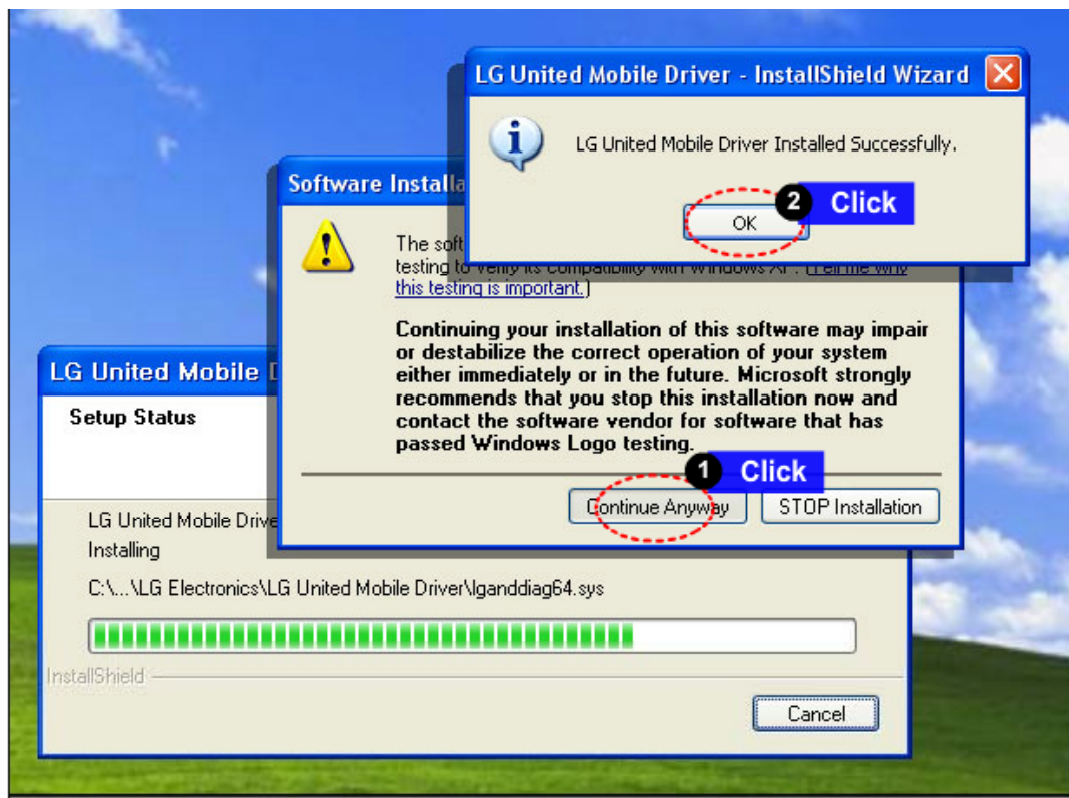
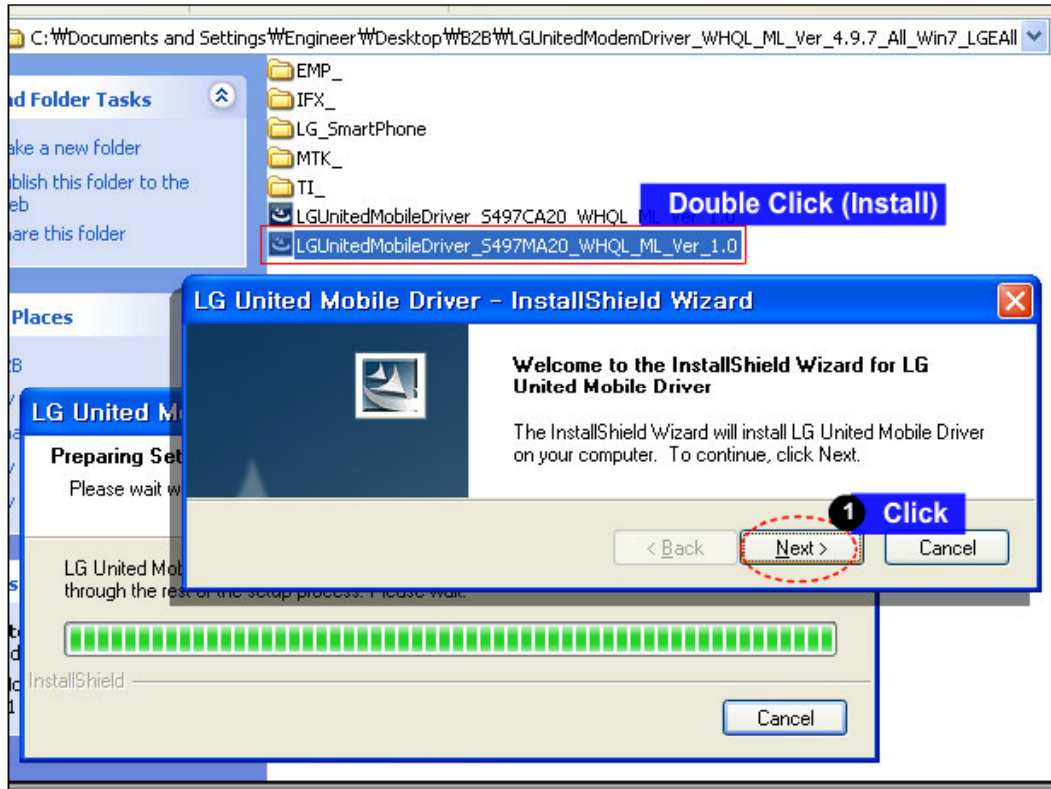






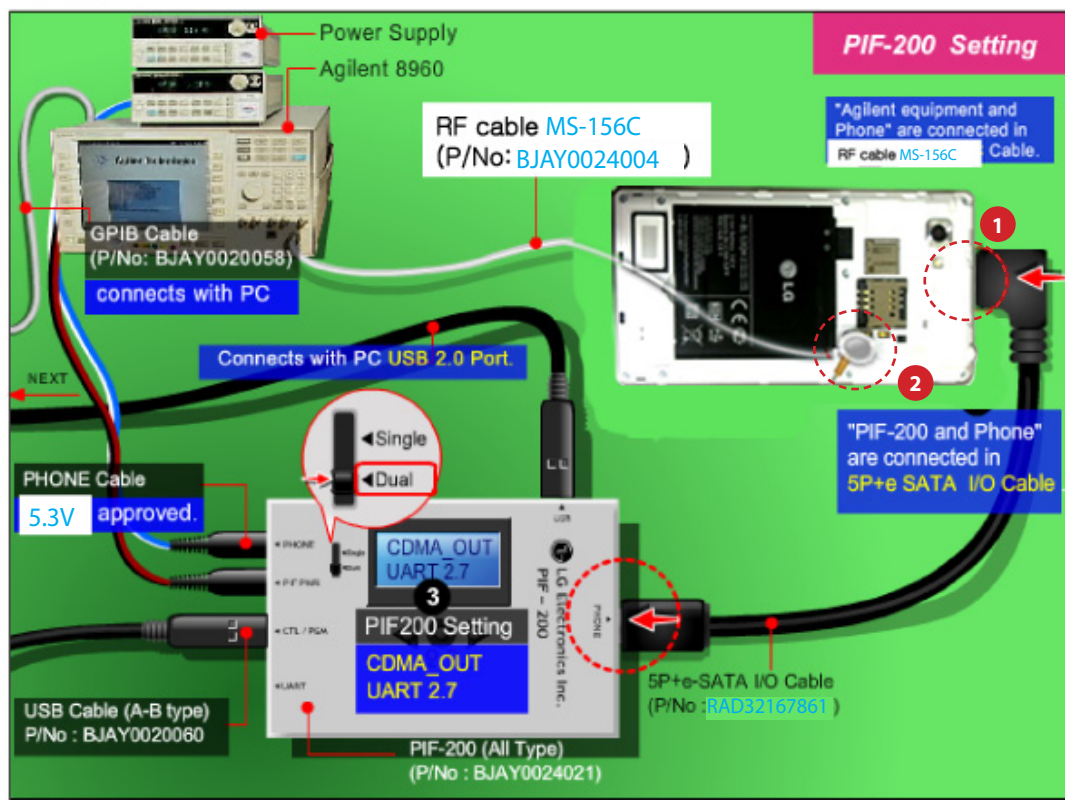
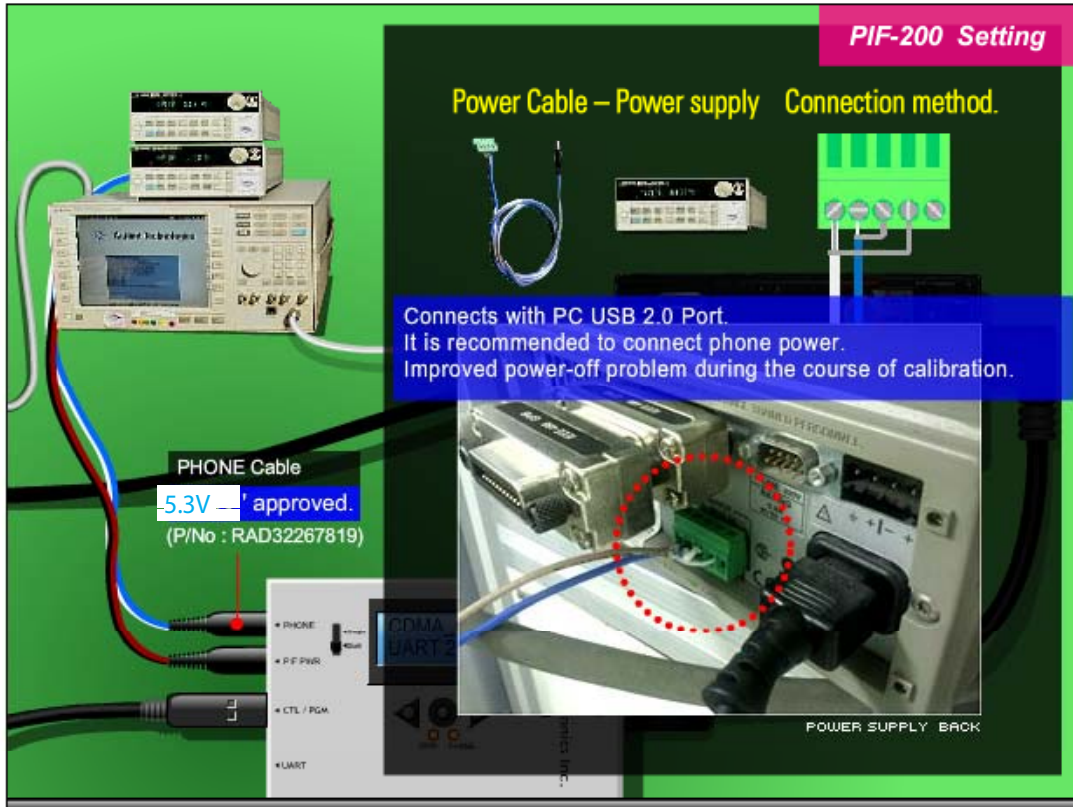


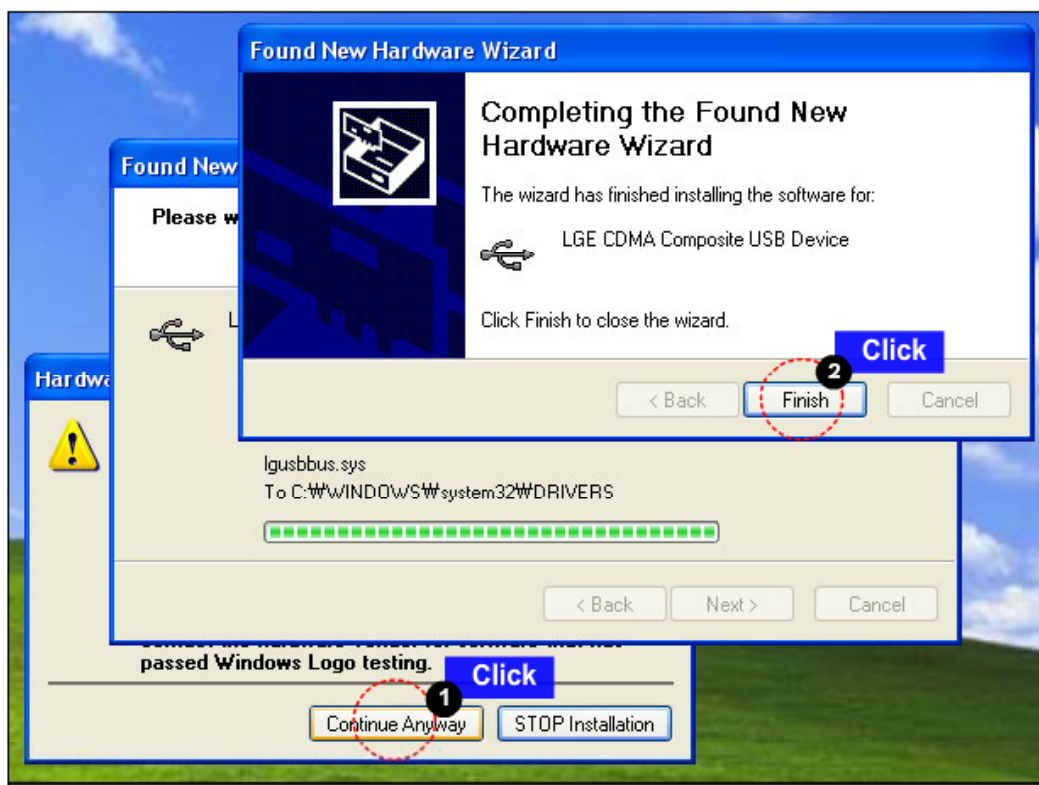
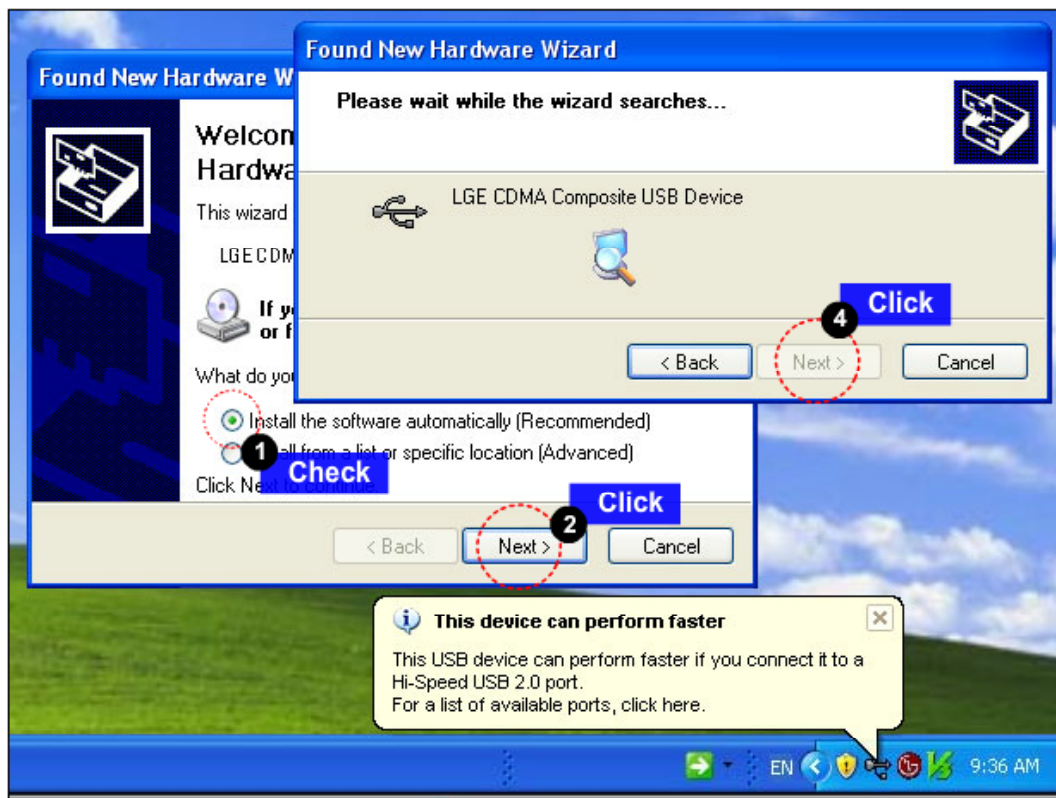


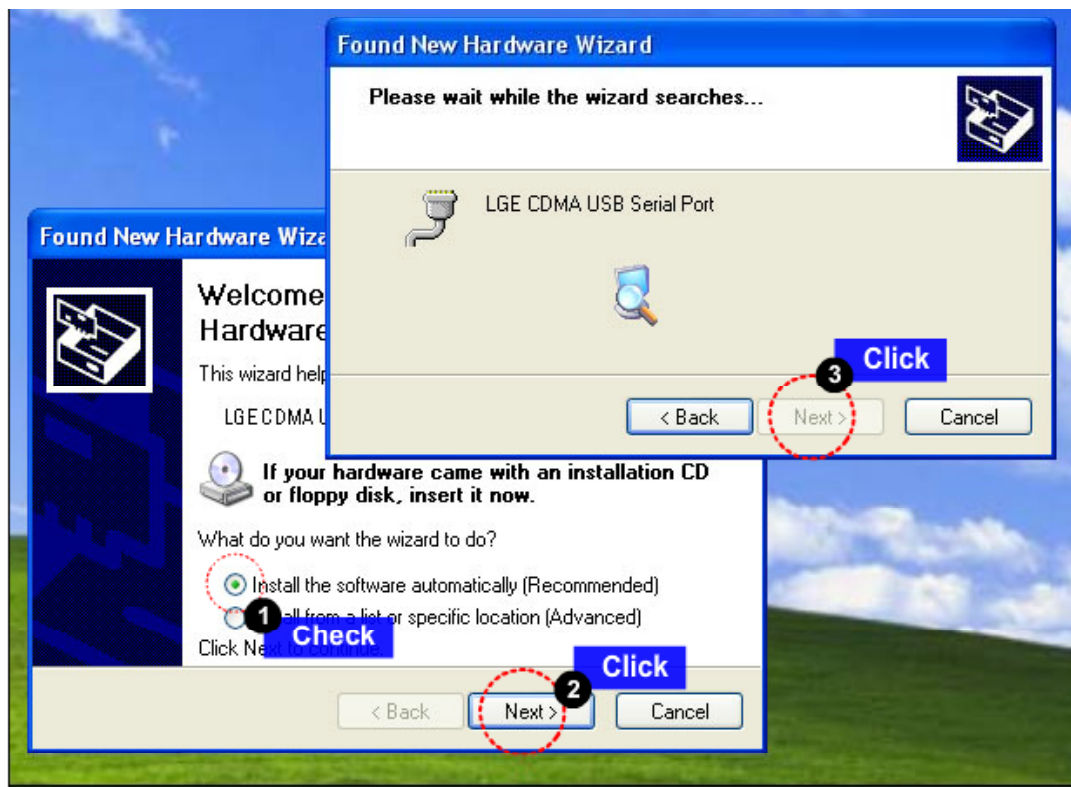
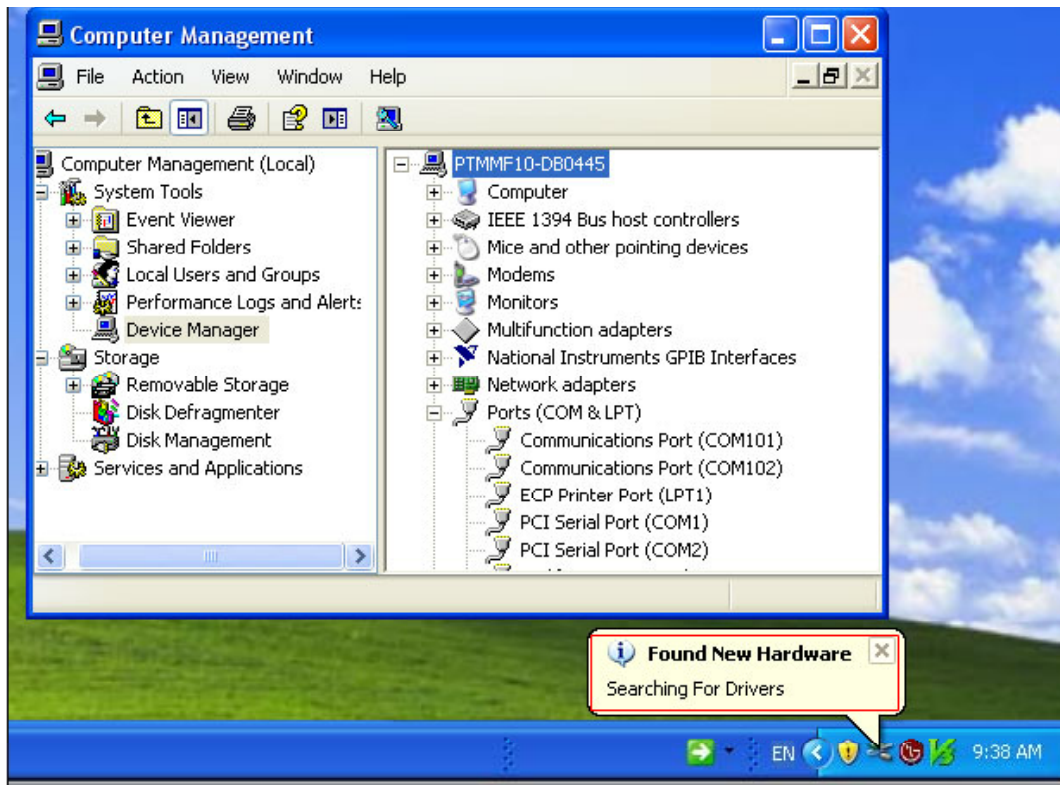




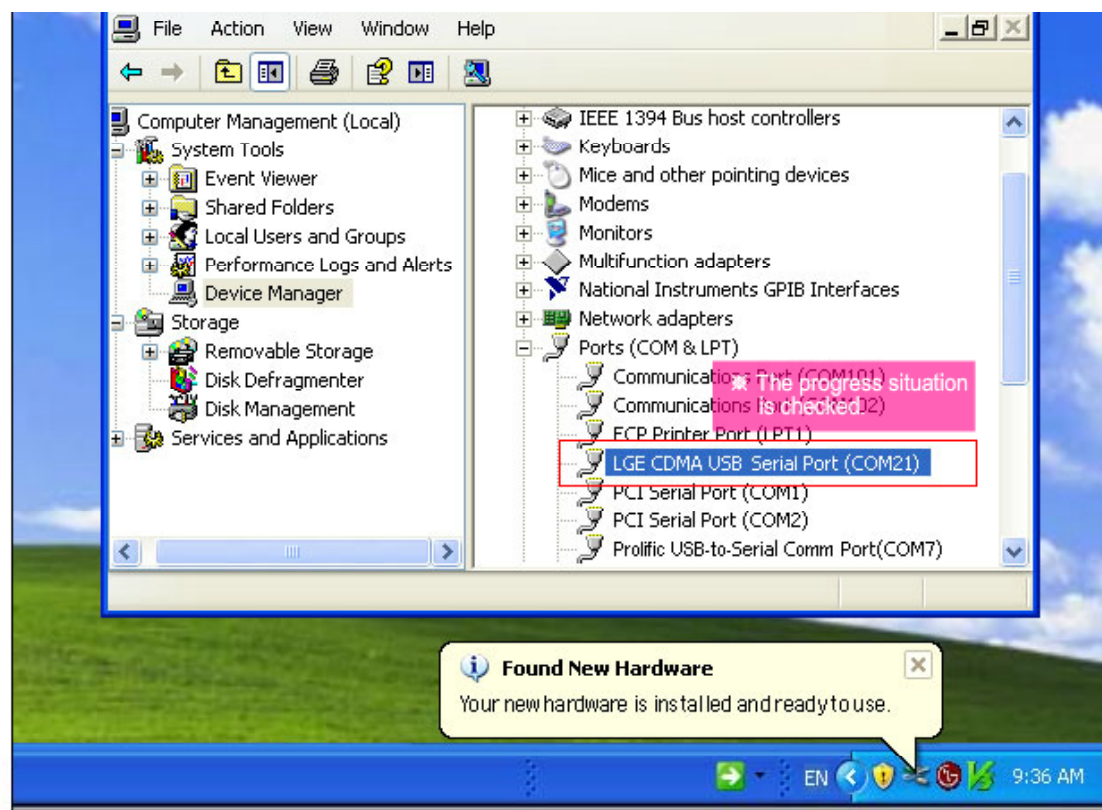
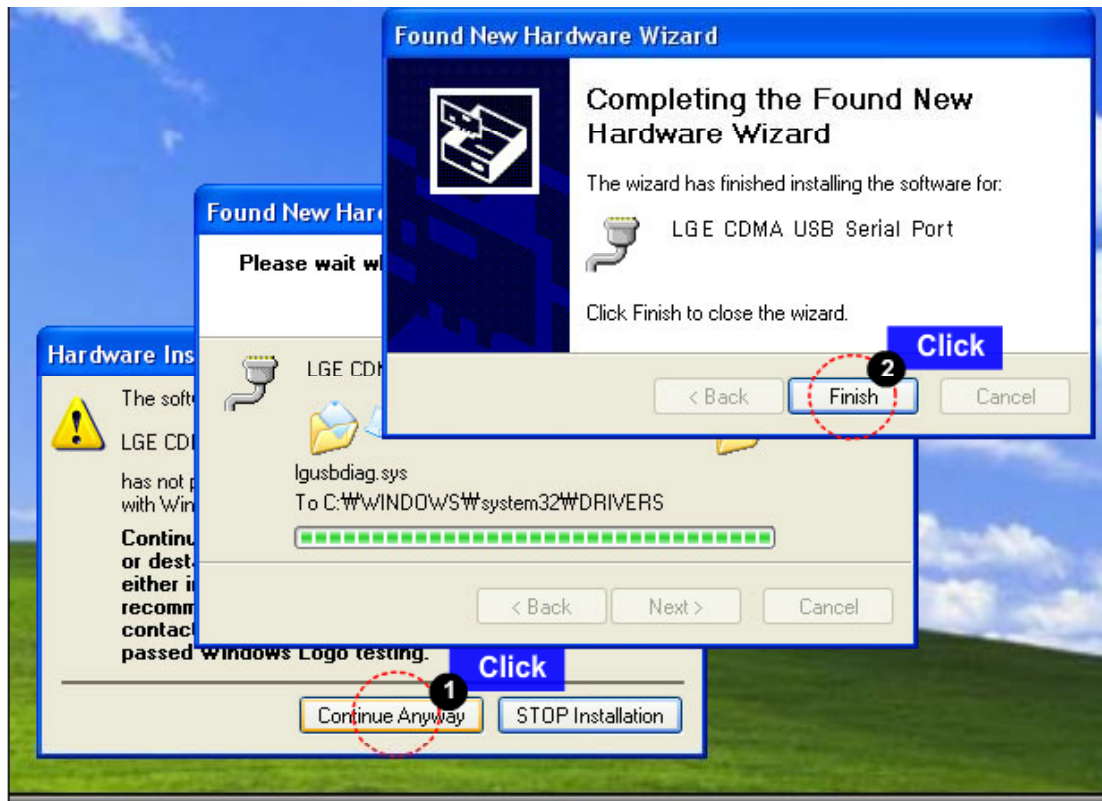
## 10. CALIBRATION



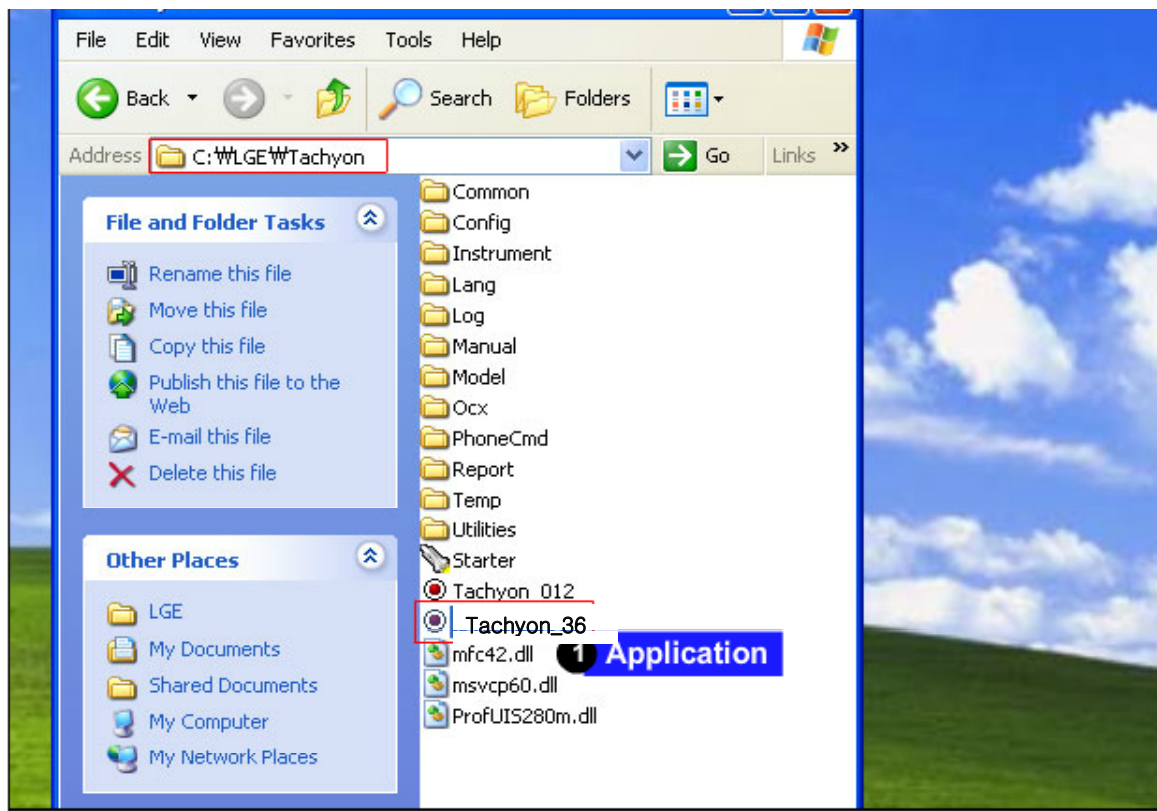
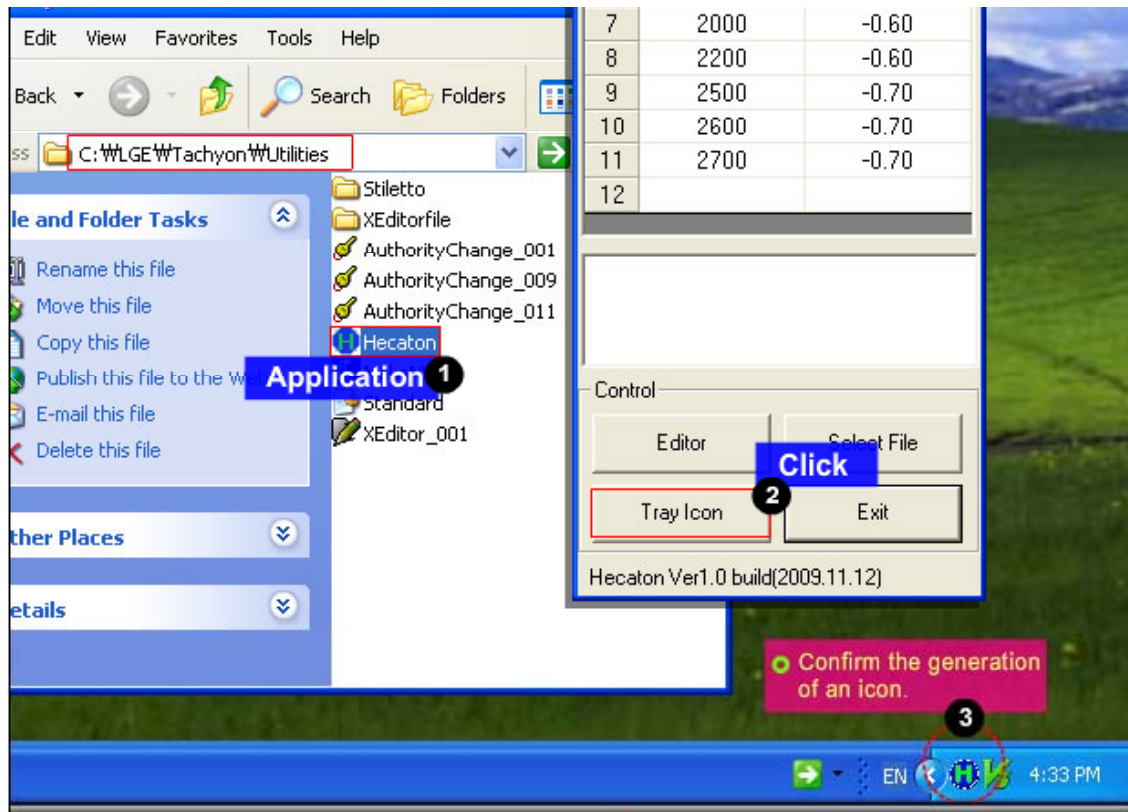


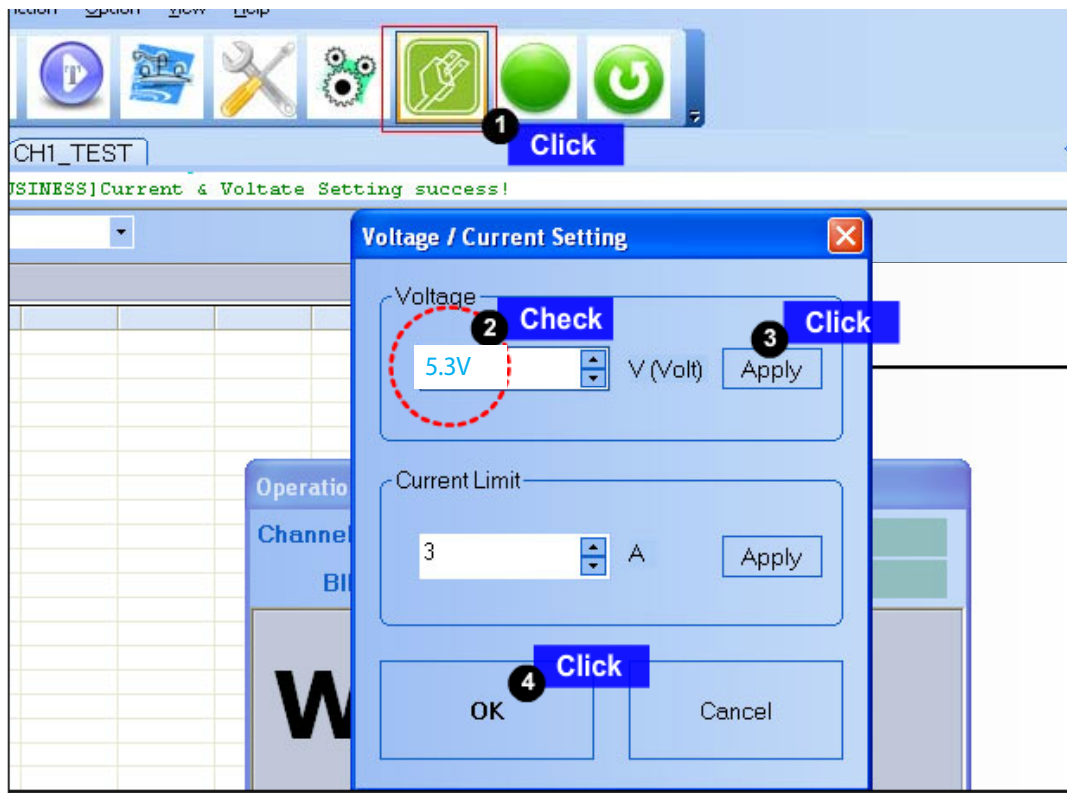
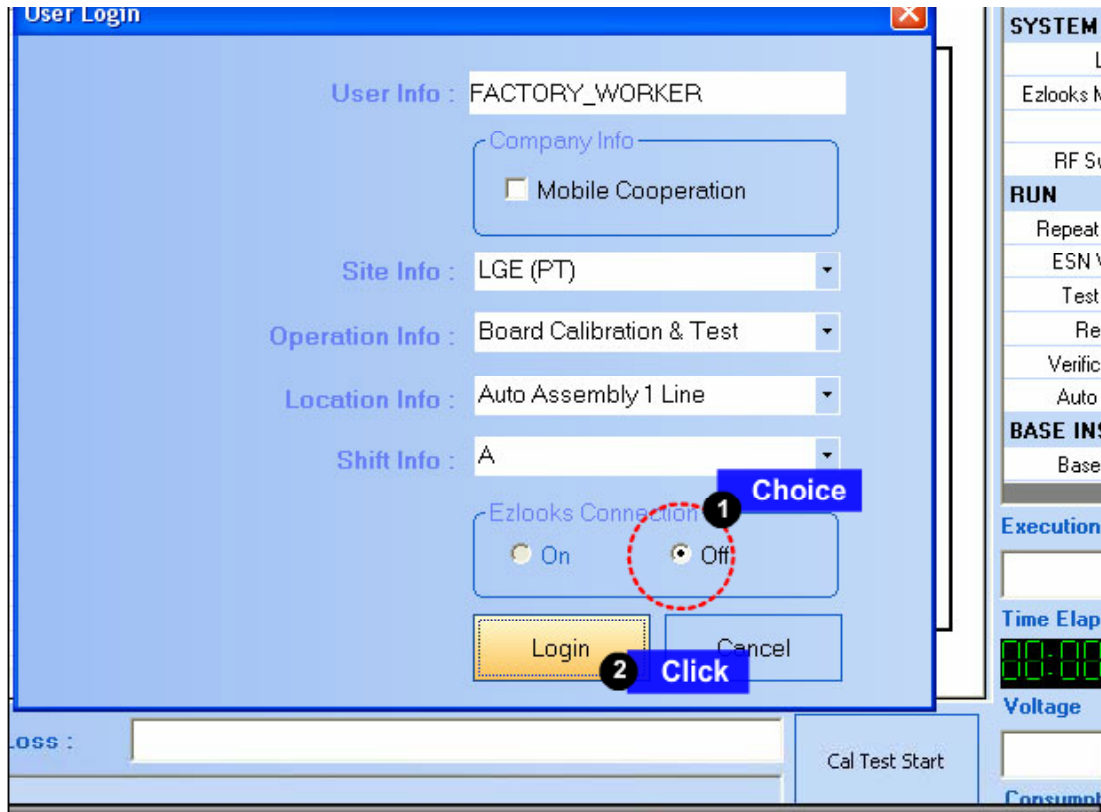




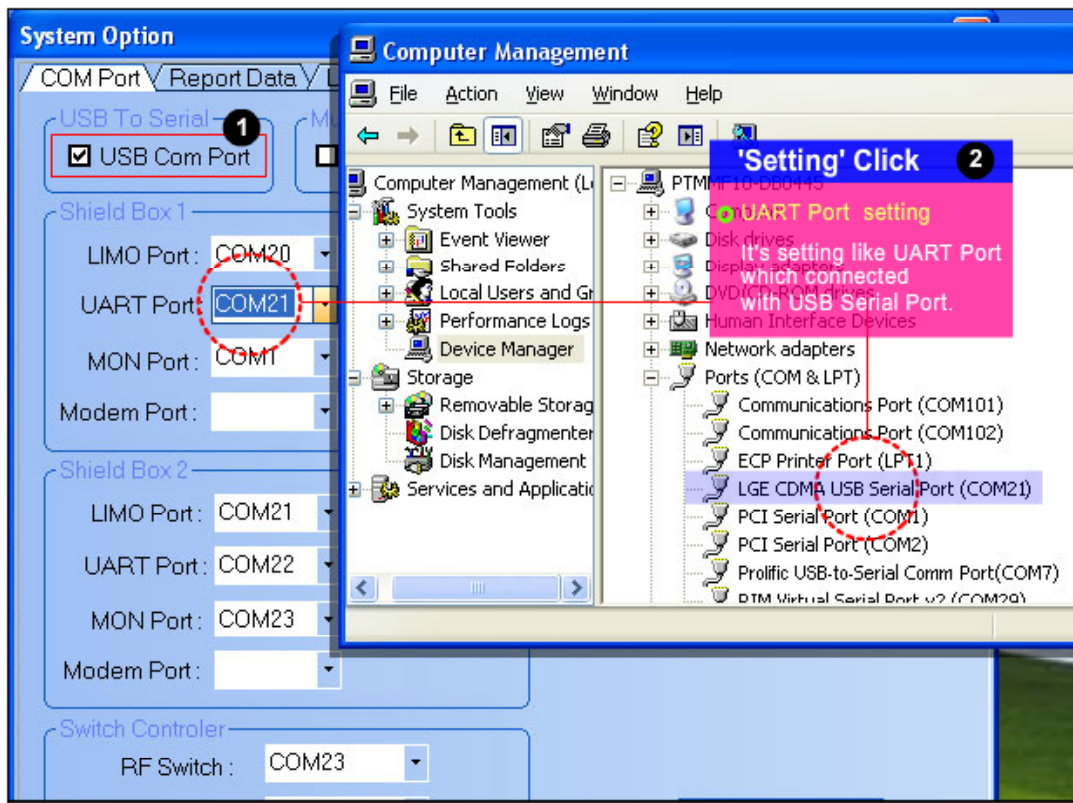
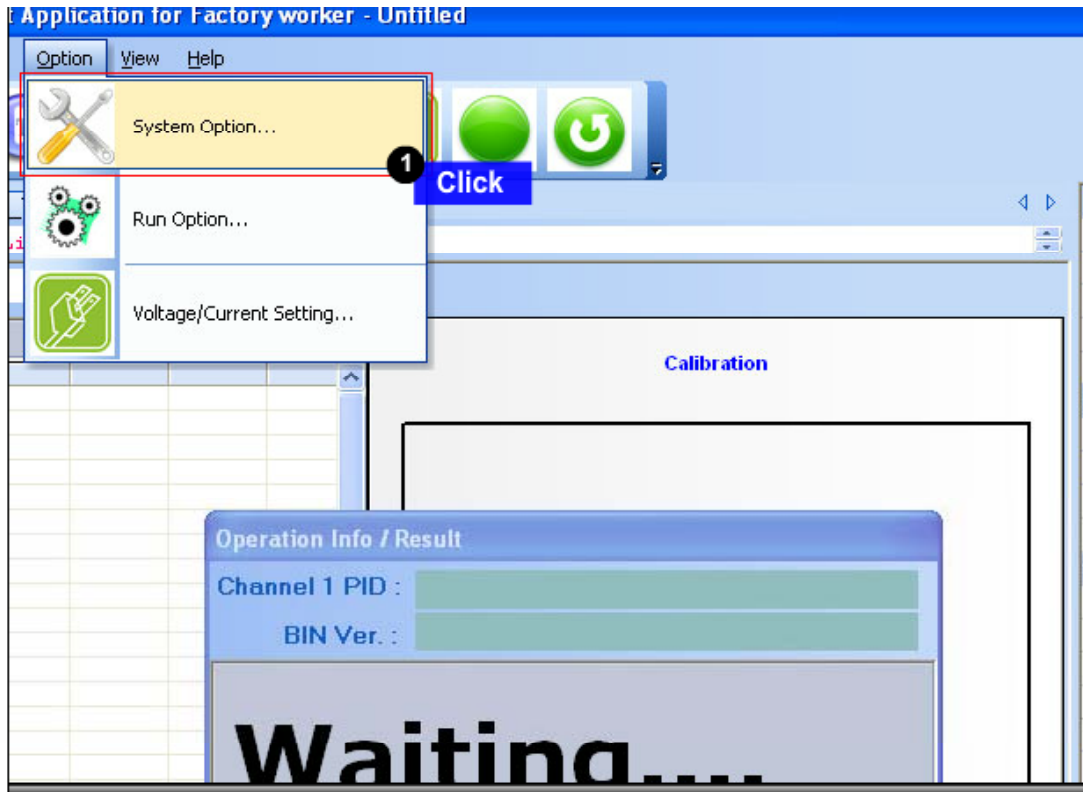


## 10. CALIBRATION

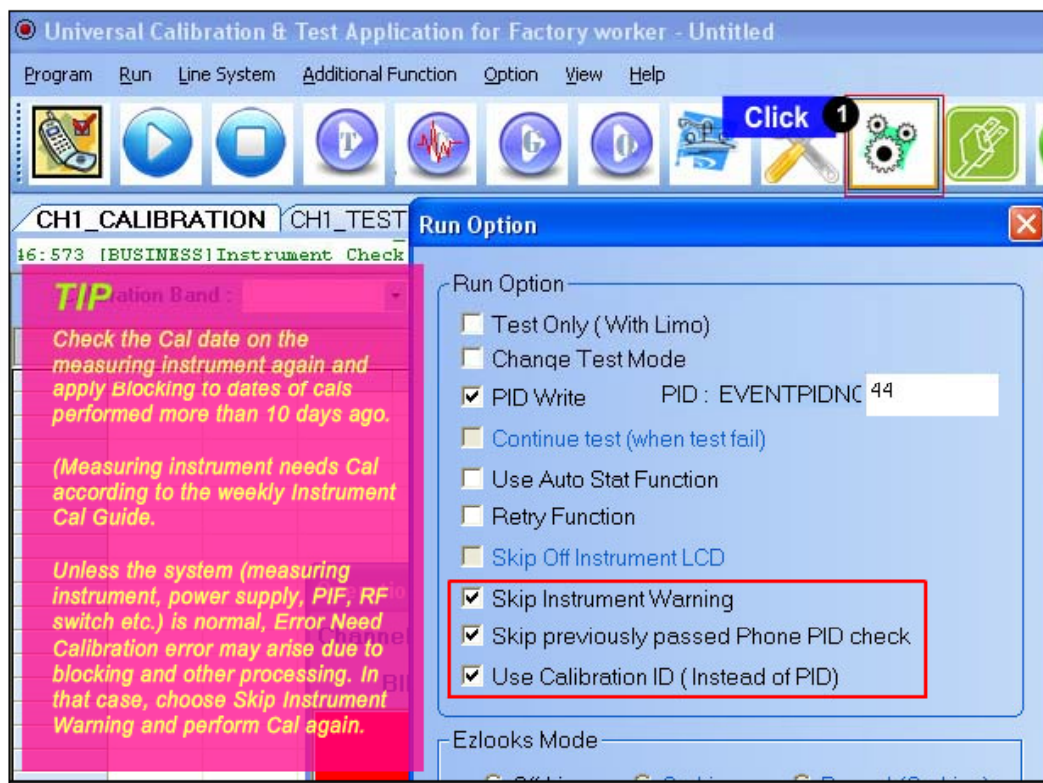
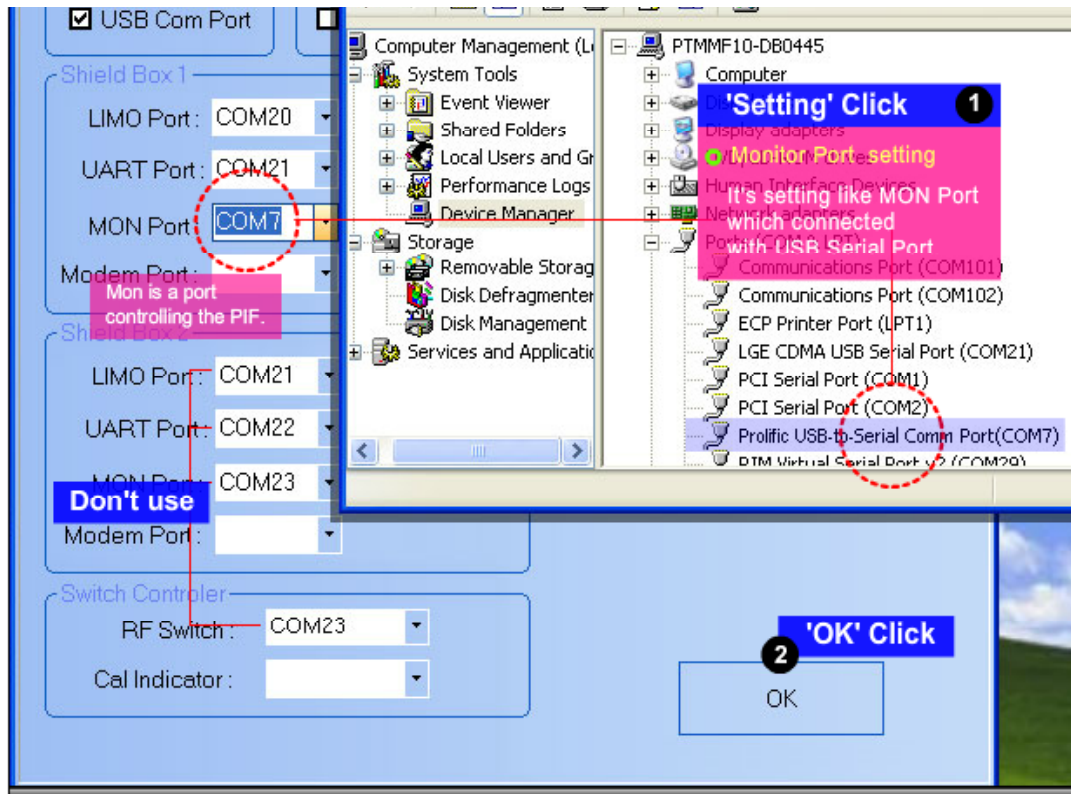


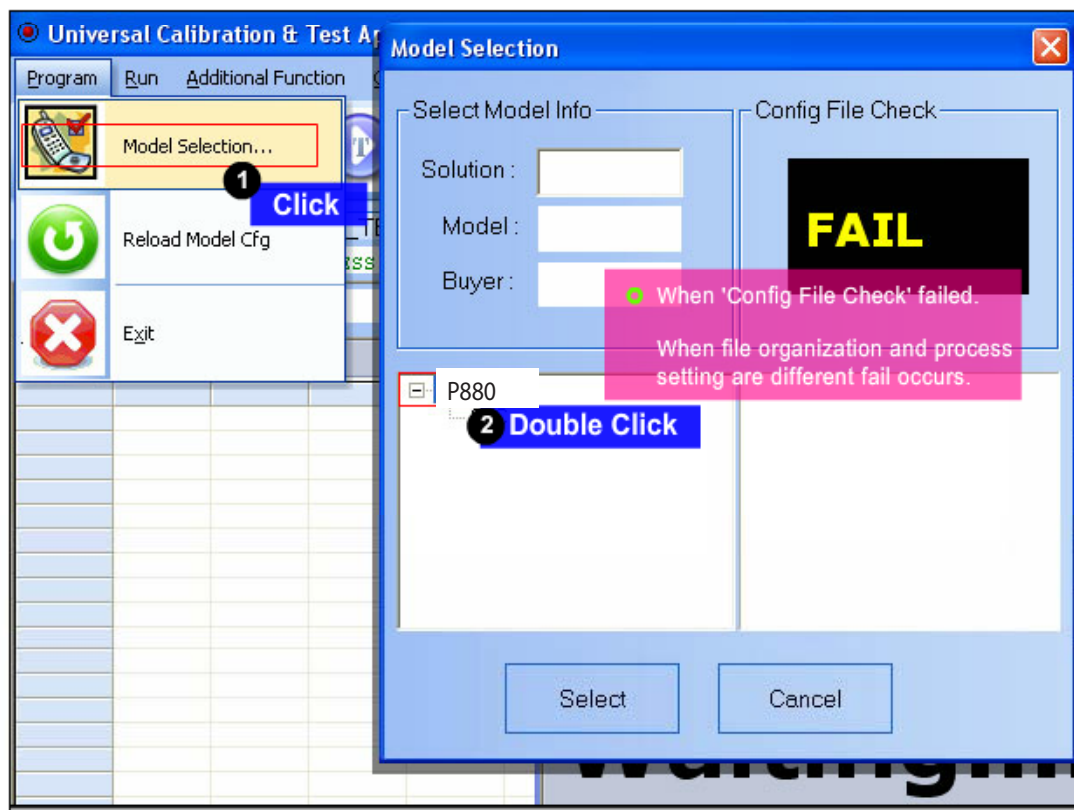
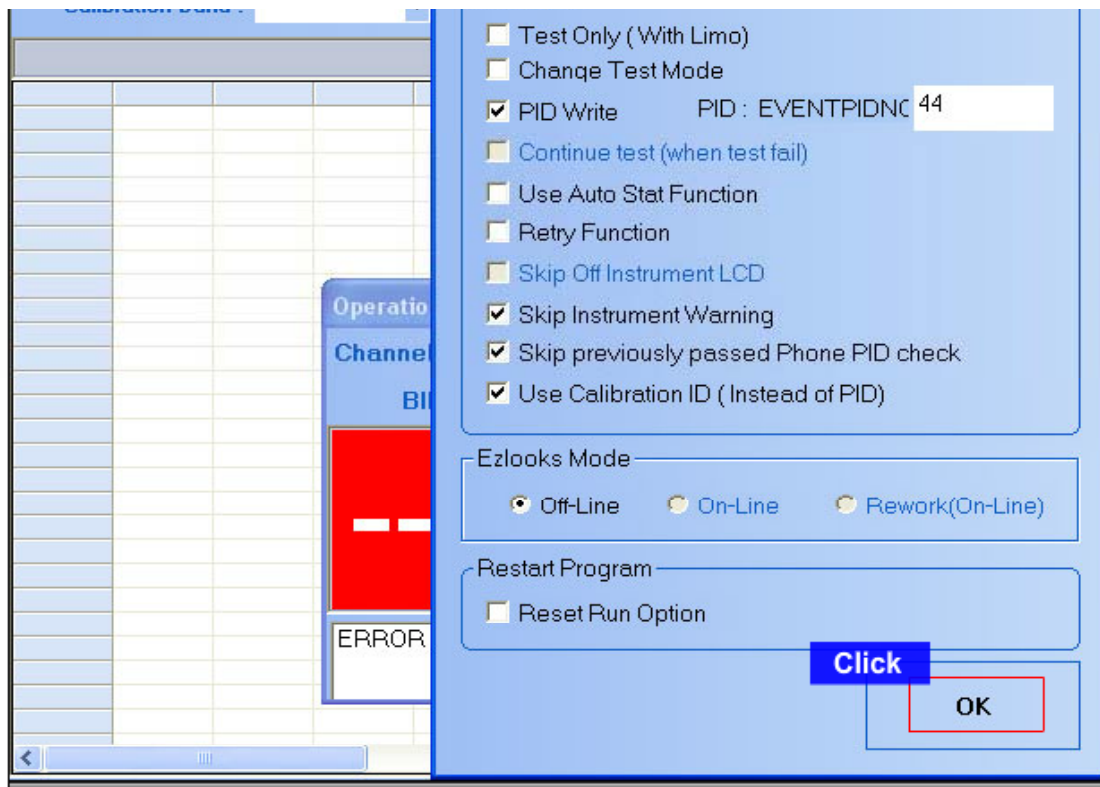


## 10. CALIBRATION

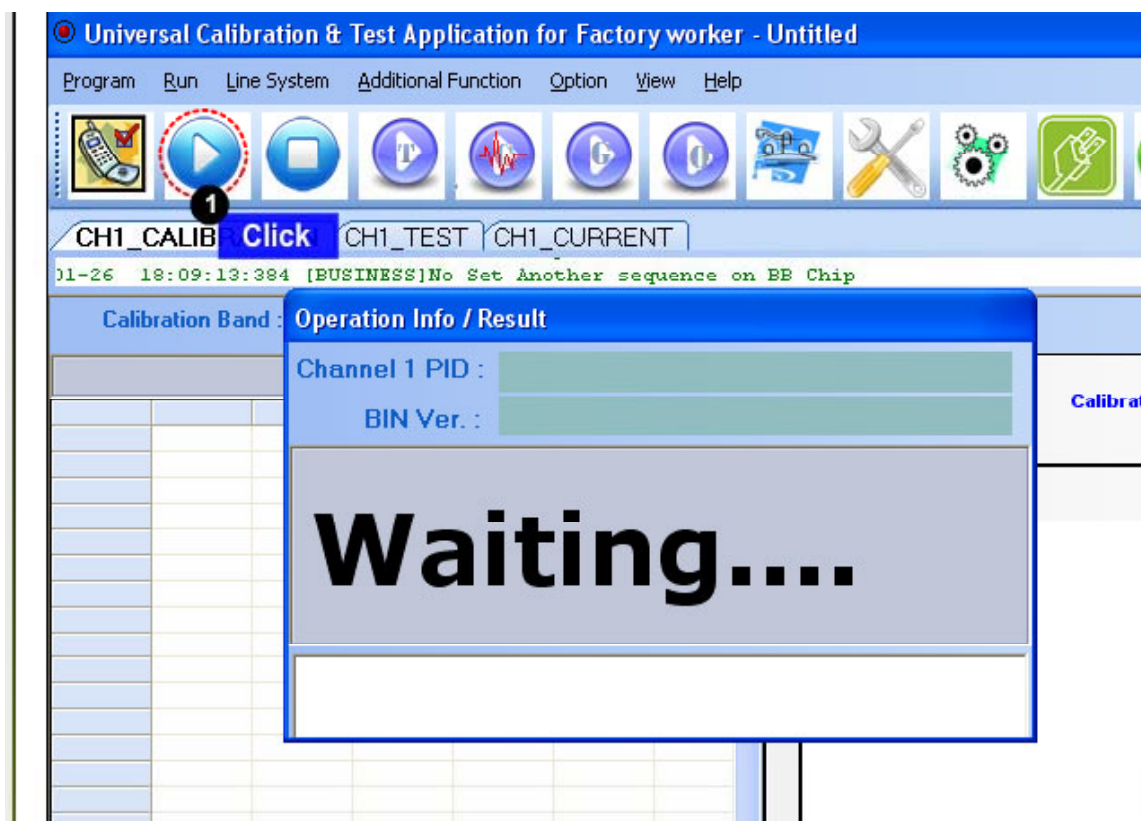
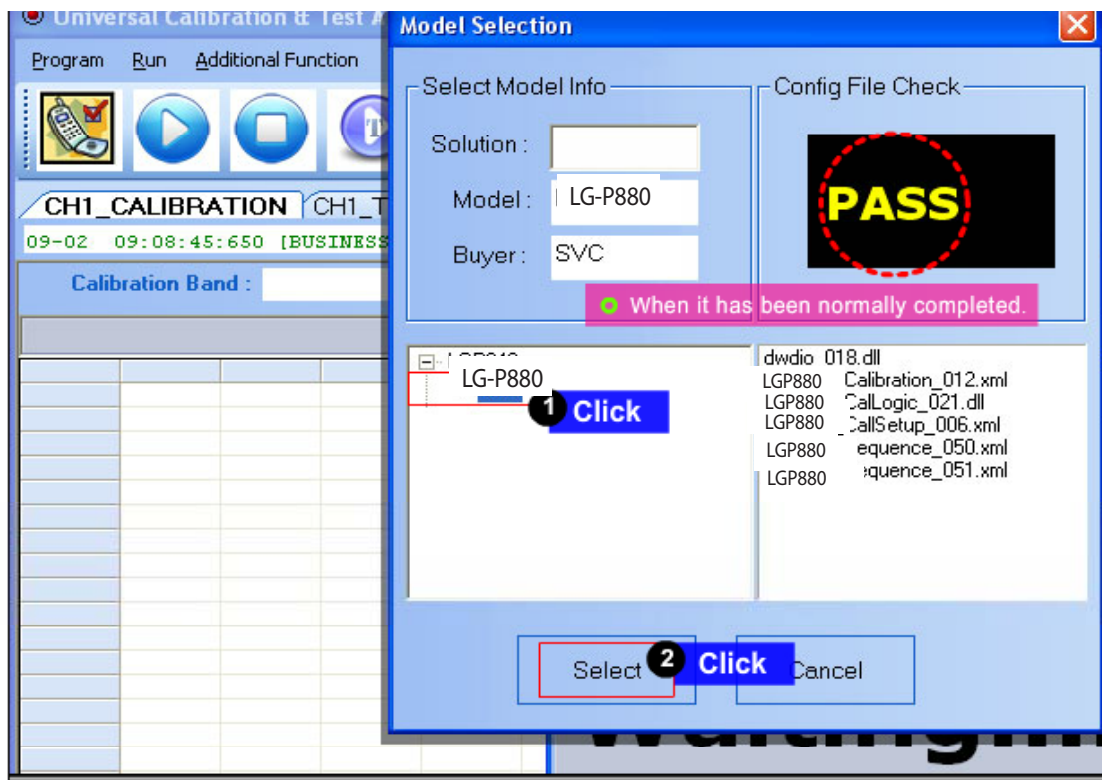


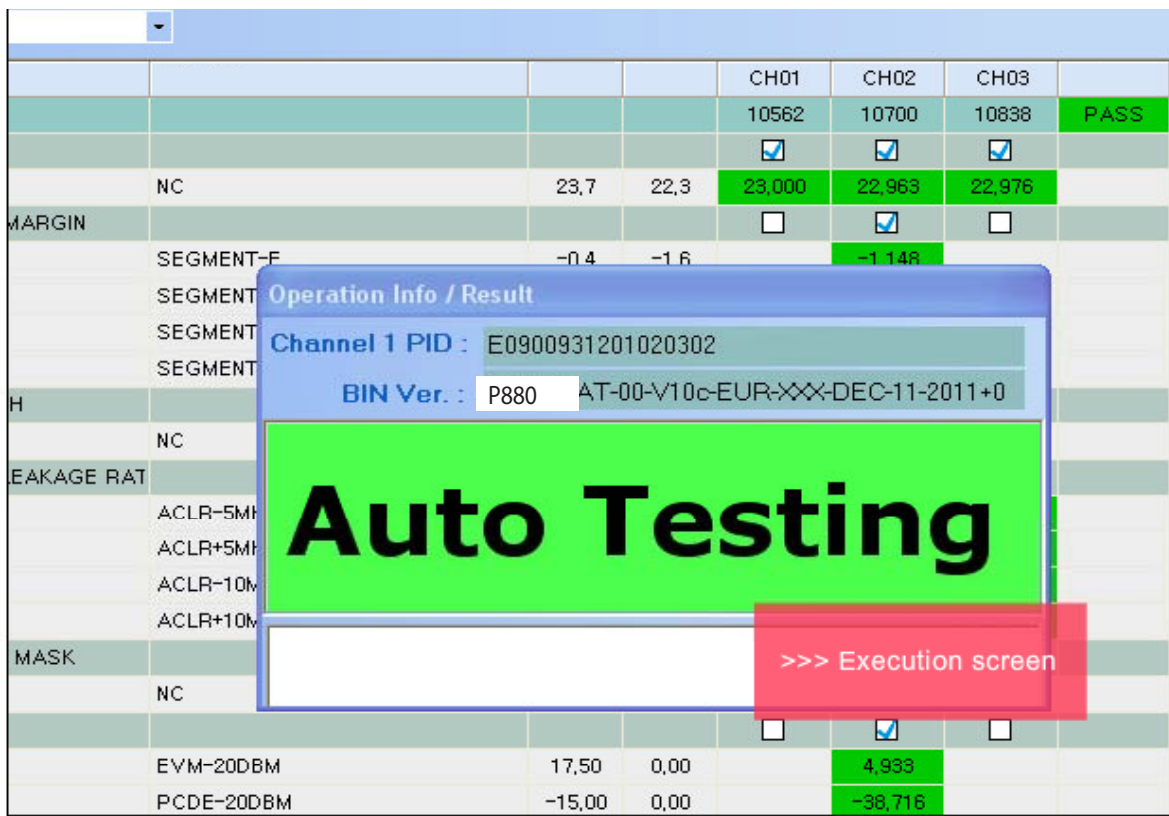
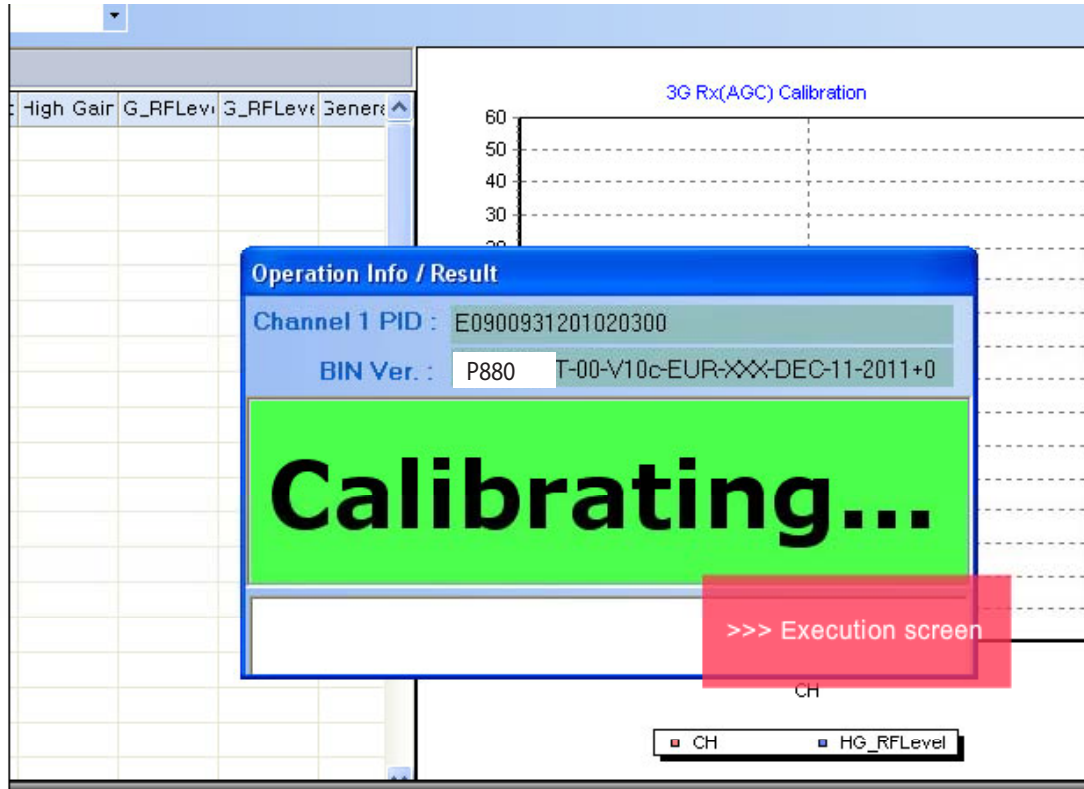








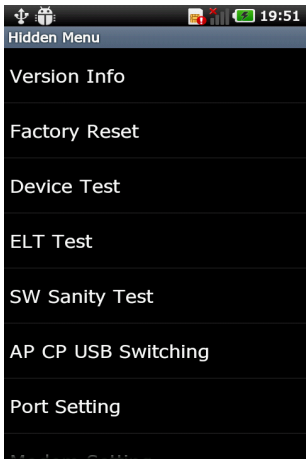
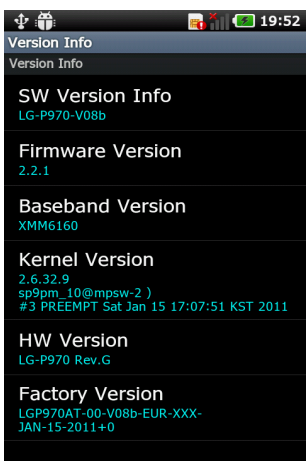
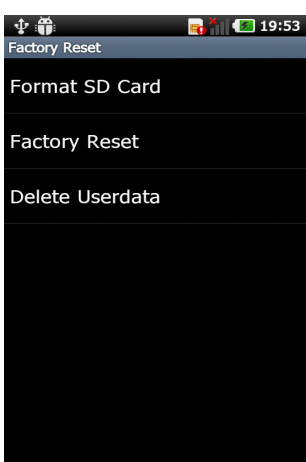


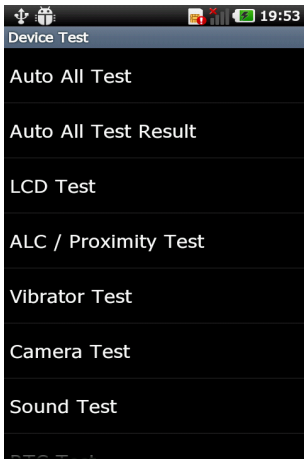
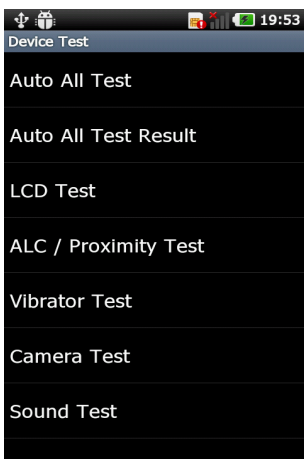


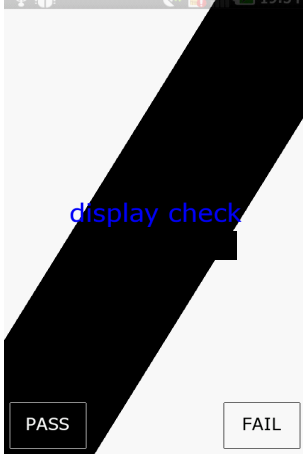
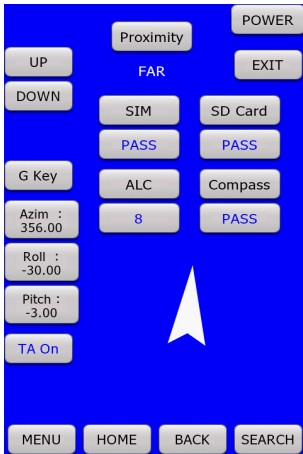
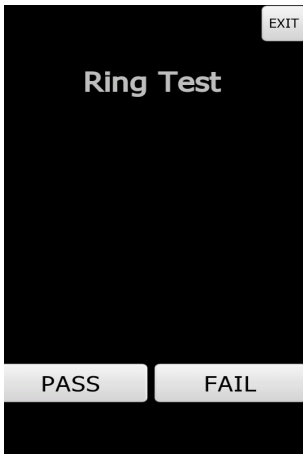
				10562	10700	10838	PASS
				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	NC	23,7	22,3	23,065	22,983	23,013	
MARGIN				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
SEGMENT	<div> <div>Operation Info / Result</div> <div>Channel 1 PID : F09000931201020299</div> <div>BIN Ver. : P880 AT-00-V10c-EUR-XXX-DEC-11-2011+0</div> <div> <div>---</div> <div>PASS</div> <div>---</div> </div> </div>						
SEGMENT							
SEGMENT							
SEGMENT							
OTH							
NC							
LEAKAGE RAT							
ACLR-5M							
ACLR+5M							
ACLR-10M							
ACLR+10M							
ON MASK							
NC		0,5	-0,5				
Y							<input type="checkbox"/>
EVM-20DBM		17,50	0,00		4,720		
PCDE-20DBM		-15,00	0,00		-38,441		
<div> <div>System Loss :</div> <div>MySystem(MS ).gms : RF900 6C.grf</div> </div>							

'PASS' The End

# 11. HIDDEN MENU

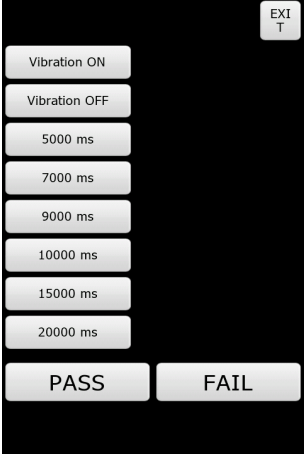
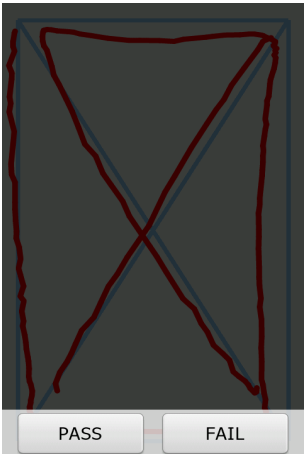

	<p><b>Hidden Menu Start</b> Start shortcut keys:3845#*880#</p> <p><b>Hidden Menu List</b> Start the desired menu: Menu, click</p>
	<p><b>Version Info</b> Classified Information representation</p>
	<p><b>Factory Reset:</b></p> <p>Format SD card : External SD Card Data reset. Factory Rest : Changing the Factory. Delete Userdata : Delete Userdata.</p>

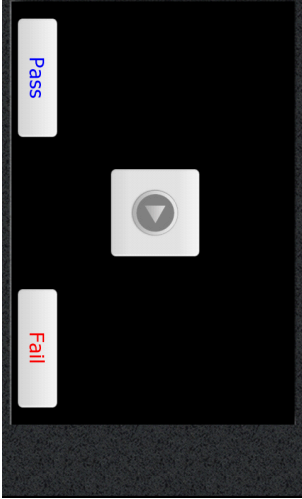
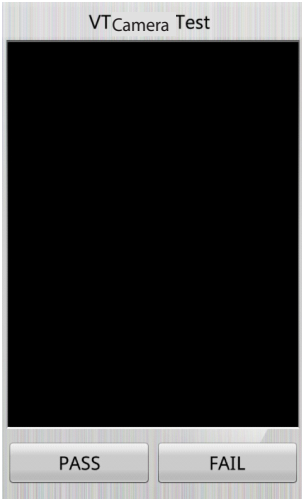
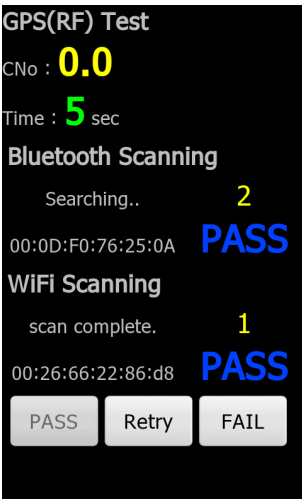
	<p><b>Device Test</b></p> <p>List:</p> <p>Auto all Test: Device functionality testing at the factory to use</p> <p>Auto All Test Result</p> <p>LCD Test</p> <p>ALC / Proximity Test</p> <p>Vibrator Test</p> <p>Camera Test</p> <p>Sound Test</p> <p>RTC Test</p> <p>Touch Test</p> <p>External Memory Test</p> <p>Key / Compass Test</p> <p>Gesture Test</p> <p>LED current control</p> <p>LCD Backlight current control</p> <p>Accelerometer Test</p> <p>Gyroscope Test</p> <p>Gyro Cal Test</p> <p>Hall Sensor Test</p> <p>Reset SD Card</p>
	<p><b>Device Test List</b></p> <p>Auto All Test :</p> <p>-&gt; Auto All Test menu click</p> <p>-&gt; Continuous information on the menu, giving you ability test</p>

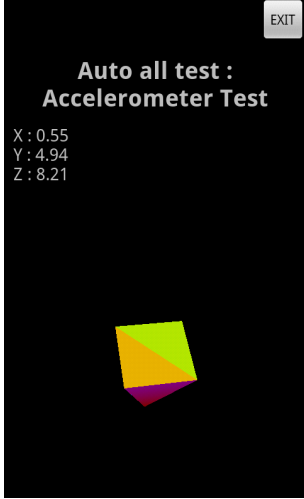
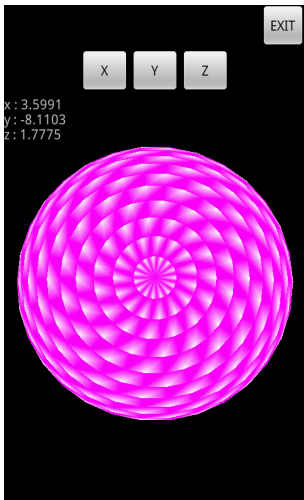
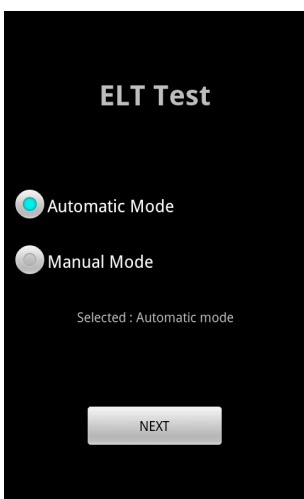
	<p><b>Display Check Test</b></p>
	<p><b>Key / SIM / SD Card / TA / Proximity / ALC / Compass</b></p>
	<p><b>Ring Test</b></p>


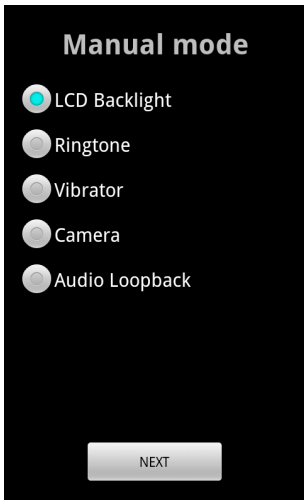
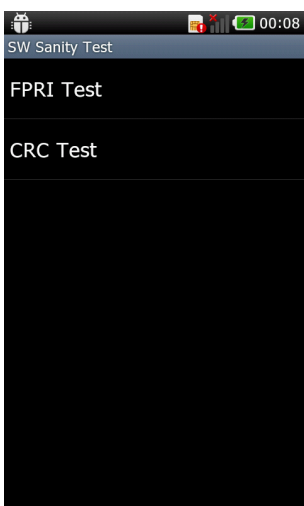


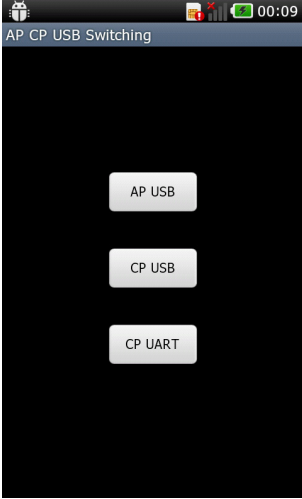
## 11. HIDDEN MENU

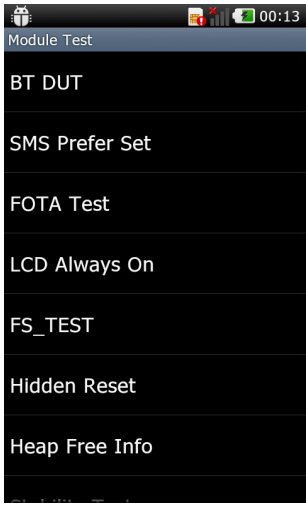
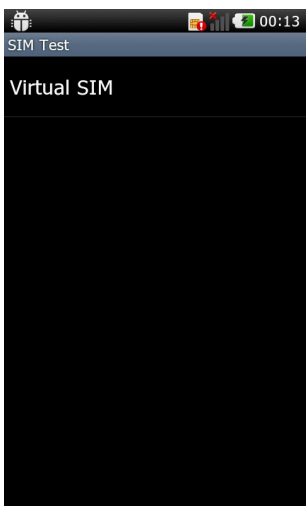
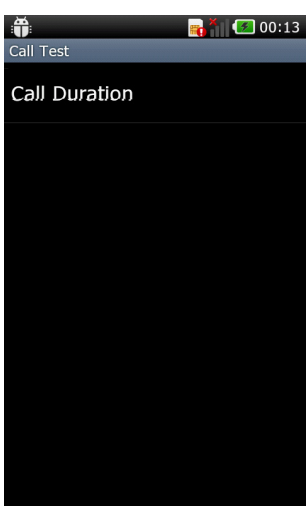
	<b>Vibrator Test</b>
	<b>Touch Draw Test</b>
	<b>Camera Test_1</b> - Primary Camera

	<p><b>Camera Test_2</b> - Primary Camera</p>
	<p><b>Camera Test_3</b> - Sencondary Camera</p>
	<p><b>GPS / BT / WiFi</b></p>

 <p>The screen displays 'Auto all test : Accelerometer Test' with an 'EXIT' button in the top right. It shows three axes of acceleration: X: 0.55, Y: 4.94, and Z: 8.21. Below the text is a 3D cube graphic with yellow, green, and red faces.</p>	<p><b>Accelerometer Test</b></p>
 <p>The screen displays 'Gyroscope test' with an 'EXIT' button in the top right. It shows three axes of rotation: x: 3.5991, y: -8.1103, and z: 1.7775. Above the text are three buttons labeled 'X', 'Y', and 'Z'. Below the text is a large, colorful, concentric circular pattern resembling a gyroscope's motion.</p>	<p><b>Gyroscope test</b></p>
 <p>The screen displays 'ELT Test'. It has two radio button options: 'Automatic Mode' (selected) and 'Manual Mode'. Below these, it says 'Selected : Automatic mode'. At the bottom is a 'NEXT' button.</p>	<p><b>ELT Test</b></p> <p>Automatic Mode Test Automatically Manual Mode : Test selectivity</p>

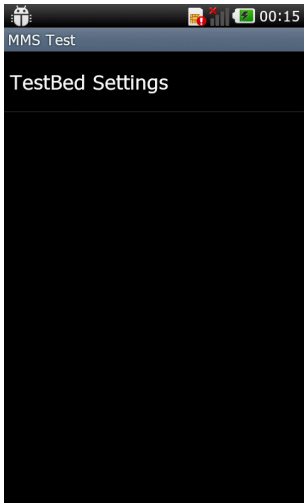
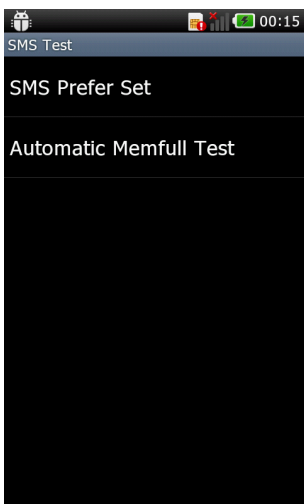
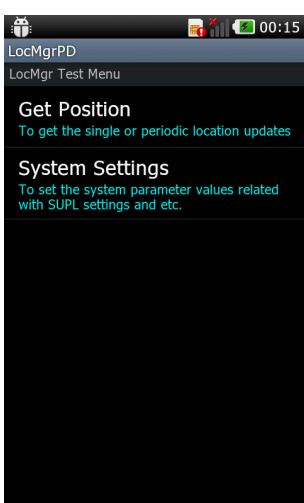
	<p><b>ELT Test</b></p> <p>Automatic Mode : LCD Automatic on/off test -&gt; time setting</p>
	<p><b>ELT Manual Test</b></p> <p>LCD Backlight Ringtone Vibrator Camera Audio Loopback -&gt; test on the device is working (The ability to use plant)</p>
	<p><b>SW Sanity Test:</b></p> <p>FPRI Test CRC Test: 1. BIN CRC                   2. CAL CRC                   3. EFS CRC Detail</p>

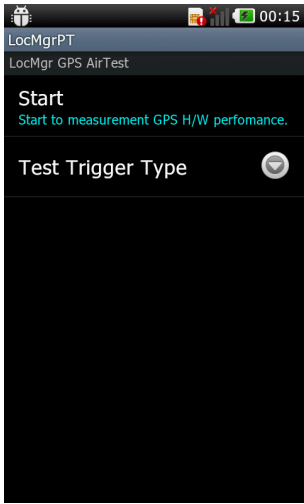
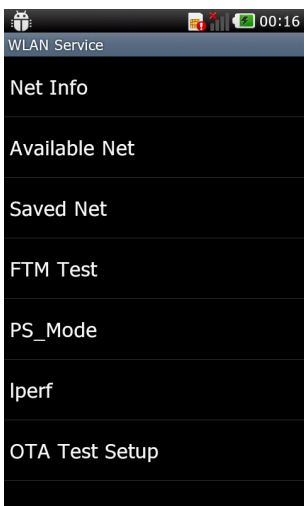
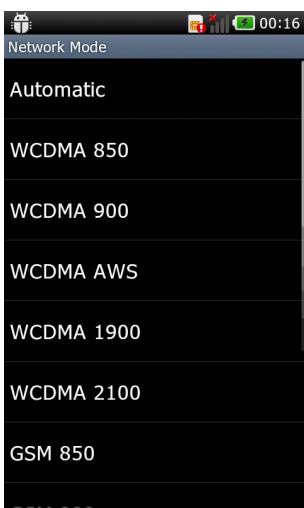
	<p><b>AP CP USB Switching</b></p>
	<p><b>Port Setting</b></p>
	<p><b>Modem Setting</b></p> <p>Menu:</p> <ul style="list-style-type: none"> <li>Engineering Mode</li> <li>RRC Version Setting</li> <li>QCRIL Log On/Off</li> <li>PDP Setting</li> <li>HSDPA Category</li> <li>GSM A5 Algorithm</li> <li>Protocol Test</li> <li>GCF Flag</li> <li>Arm9 Log On/Off</li> <li>Qos profiles</li> <li>Preferred networks</li> <li>CAL Backup / Restore</li> </ul>

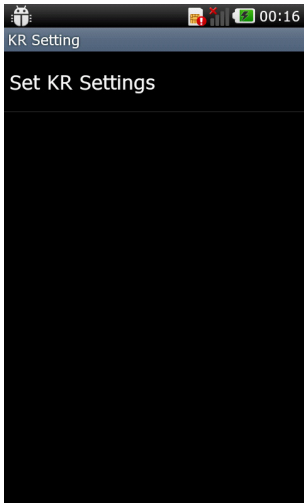
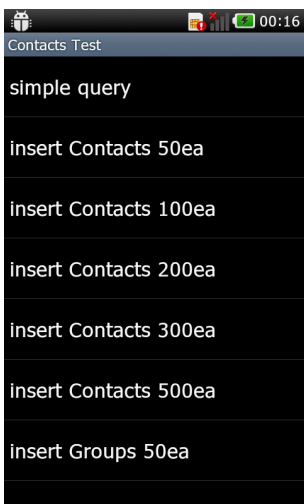
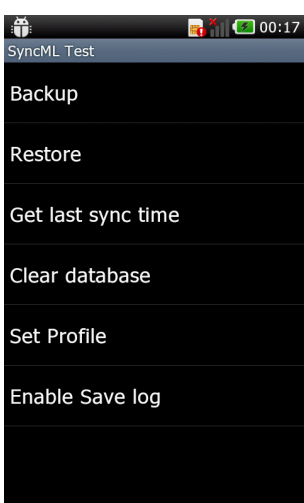
	<p><b>Module Test list:</b></p> <ul style="list-style-type: none"> <li>BT DUT setting</li> <li>SMS Prefer Set</li> <li>FOTA Test</li> <li>LCD Always On</li> <li>FS_TEST</li> <li>Hidden Reset</li> <li>Heap Free Info</li> <li>Stability Test</li> <li>Charging Test</li> </ul>
	<p><b>SIM Test</b></p>
	<p><b>Call Test</b></p>

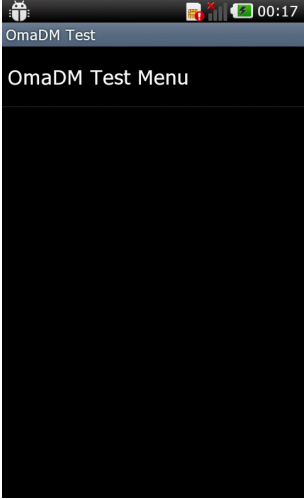
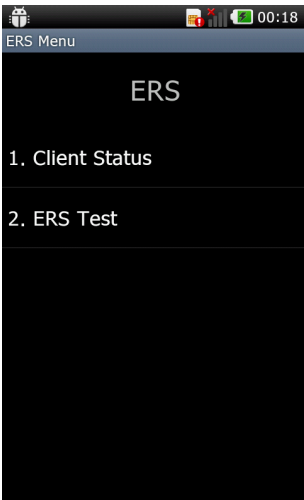
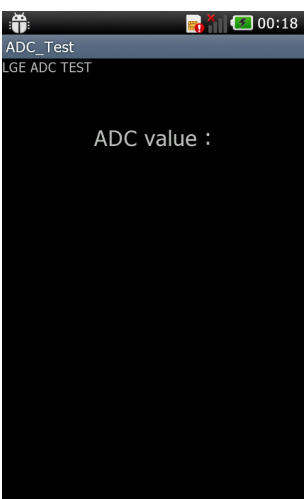


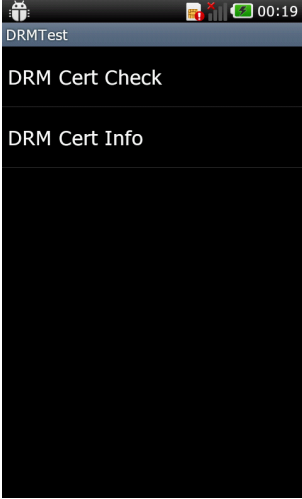
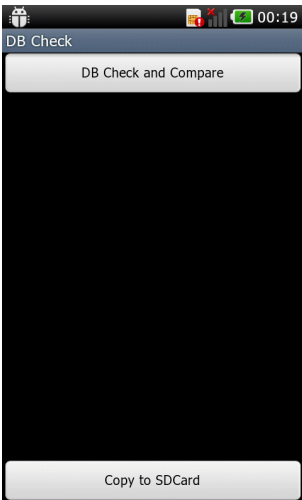
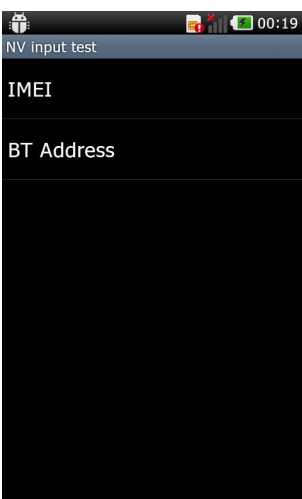
 <p>A screenshot of a mobile device screen showing the 'Aging Test' menu. The status bar at the top shows the time as 00:14. The menu title 'Aging Test' is at the top. Below it, there are two options: '1. DataBase Full Test' and '2. Database Shake Test'.</p>	<p><b>Aging Test</b></p>
 <p>A screenshot of a mobile device screen showing the 'Streaming' menu. The status bar at the top shows the time as 00:14. The menu title 'Streaming' is at the top. Below it, there are two options: 'Streaming Setting Edit' and 'Streaming Log'.</p>	<p><b>Streaming</b></p>
 <p>A screenshot of a mobile device screen showing the 'Browser Utility' menu. The status bar at the top shows the time as 00:14. The menu title 'Browser Utility' is at the top. Below it, there are seven options: 'Enable/Disable Test UAStrng', 'Change UAStrng', 'View UAStrng', 'Edit UAStrng', 'Enable/Disable X-wap-profile', 'Display Certificates', and 'Edit UAProfile'.</p>	<p><b>Browser Utility</b></p>

 <p>The screenshot shows a mobile phone screen with a status bar at the top displaying signal strength, battery level, and the time 00:15. Below the status bar is a header bar labeled 'MMS Test'. The main content area is titled 'TestBed Settings' and is currently empty.</p>	<p><b>MMS Test</b></p>
 <p>The screenshot shows a mobile phone screen with a status bar at the top displaying signal strength, battery level, and the time 00:15. Below the status bar is a header bar labeled 'SMS Test'. The main content area contains two options: 'SMS Prefer Set' and 'Automatic Memfull Test'.</p>	<p><b>SMS Test</b></p>
 <p>The screenshot shows a mobile phone screen with a status bar at the top displaying signal strength, battery level, and the time 00:15. Below the status bar is a header bar labeled 'LocMgrPD'. The main content area is titled 'LocMgr Test Menu' and contains two options: 'Get Position' with the description 'To get the single or periodic location updates' and 'System Settings' with the description 'To set the system parameter values related with SUPL settings and etc.'.</p>	<p><b>GPS Test</b></p>

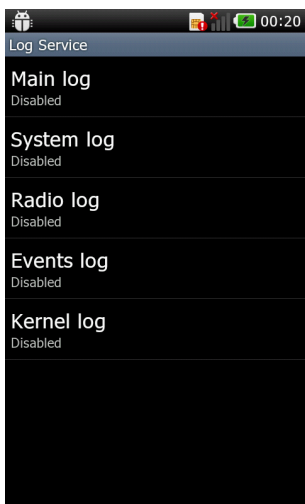
	<p><b>GPS Test_HW</b></p>
	<p><b>WLAN Test</b> WLAN performance on SW</p>
	<p><b>Network Mode</b></p>

 <p>The screenshot shows a mobile application interface with a black background and white text. At the top, there is a status bar with icons for signal, battery, and time (00:16). Below the status bar, the title "KR Setting" is displayed. The main menu item is "Set KR Settings".</p>	<b>KR Setting</b>
 <p>The screenshot shows a mobile application interface with a black background and white text. At the top, there is a status bar with icons for signal, battery, and time (00:16). Below the status bar, the title "Contacts Test" is displayed. The main menu items are: "simple query", "insert Contacts 50ea", "insert Contacts 100ea", "insert Contacts 200ea", "insert Contacts 300ea", "insert Contacts 500ea", and "insert Groups 50ea".</p>	<b>Contacts Test</b>
 <p>The screenshot shows a mobile application interface with a black background and white text. At the top, there is a status bar with icons for signal, battery, and time (00:17). Below the status bar, the title "SyncML Test" is displayed. The main menu items are: "Backup", "Restore", "Get last sync time", "Clear database", "Set Profile", and "Enable Save log".</p>	<b>SyncML Test</b>

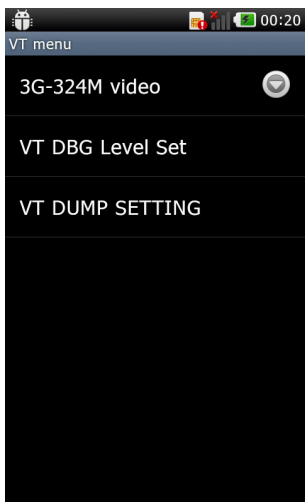
	<b>OmaDM Test</b>
	<b>ERS Menu</b>
	<b>ADC Test</b>

	<b>DRM Test</b>
	<b>DB check</b>
	<b>IMEI / BT address</b>





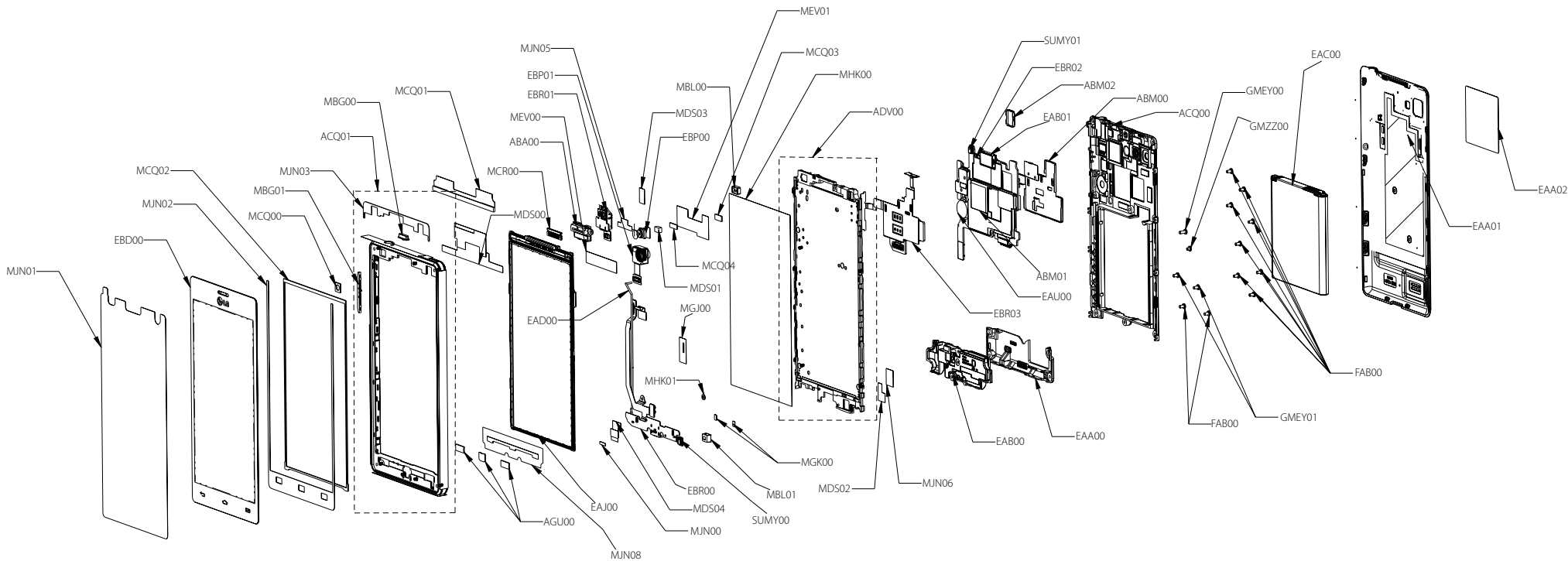
**Log Service**  
-> Collect Log



**VT Test**

12. EXPLODED VIEW & REPLACEMENT PART LIST

12.1 EXPLODED VIEW(SBOM)



Location	Description	Location	Description	Location	Description	Location	Description	Location	Description
ACQ00	Cover Assembly,Rear	MCR00	Decor	MBG01	Button,Side	MDS01	Gasket	EAB01	Receiver
EAA00	PIFA Antenna,Multiple	MDS04	Gasket	MBG00	Button	MDS02	Gasket	ABM00	Can Assembly,Shield
EAB00	Speaker Module	MEV00	Insulator	ADV00	Frame Assembly	MDS03	Gasket	ABM02	Can Assembly,Shield
EAD00	Cable,Assembly	MEV01	Insulator	AGU00	Plate Assembly	MHK00	Sheet,Operation	SUMY01	Microphone,Condenser
EAJ00	LCD,Module-TFT	MGJ00	Plate	FAB00	Screw,Machine	MJN00	Tape	EAA01	Antenna Assembly
EBP01	Camera Module	MGK00	Sheet	GMEY01	Screw,Machine	MJN01	Tape,Window	EAC00	Rechargeable Battery,Lithium Ion
EBP00	Camera Module	MHK01	Sheet	GMEY00	Screw,Machine	MJN02	Tape,Window	EAA02	Antenna Assembly
EBR01	PCB Assembly,Flexible	MJN05	Tape	GMZZ00	Screw,Machine	EBD00	Touch Window Assembly		
EBR00	PCB Assembly,Flexible	MJN06	Tape	MBL01	Cap	FAB00	Screw,Machine		
SUMY00	Microphone,Condenser	MJN08	Tape	MBL00	Cap	EBR02	PCB Assembly,Main		
MCQ02	Damper	ABA00	Bracket Assembly	MCQ01	Damper	ABM01	Can Assembly,Shield		
MCQ03	Damper	ACQ01	Cover Assembly,Front	MCQ00	Damper,Camera	EBR03	PCB Assembly,Flexible		
MCQ04	Damper	MJN03	Tape,Window	MDS00	Gasket	EAU00	Motor,DC		

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

### 12.2 ReplacementParts <Mechanic component>

**Note:** This Chapter is used for reference, Part order is ordered by SBOM standard on GCSC

Level	LocationNo.	Description	PartNumber	Spec	Remark
1	AGQ000000	Phone Assembly	AGQ86828501	LGP880.ADEUWH WH:WHITE WHITE -	
2	MEZ002100	Label,Approval	MLAA0062316	COMPLEX GU280 OREBK ZZ:Without Color COMPLEX, (empty), , , ,	
2	ACQ100400	Cover Assembly,EMS	ACQ86076701	LGP880.ADEUWH WH:WHITE WHITE -	
3	ACQ00	Cover Assembly,Rear	ACQ86030302	LGP880.AHASBK WH:WHITE WHITE -	
4	MKC043300	Window,LCD	MKC64301601	CUTTING ACRYL LGP880.AHASBK BK:BLACK BLACK -	
4	MCQ000000	Damper	MCQ67033301	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
4	MCQ000001	Damper	MCQ67131001	COMPLEX LGP880.ADEUWH ZZ:Without Color -	
4	MHK000000	Sheet	MHK63756302	COMPLEX LGP880.ADEUWH BK:BLACK BLACK -	
4	MCK063300	Cover,Rear	MCK67187102	MOLD PC LGP880.AHASBK WH:WHITE WHITE -	
4	MCQ015700	Damper Connector	MCQ66960301	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
4	MCQ009400	Damper,Camera	MCQ66979501	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
4	MCQ049800	Damper,Motor	MCQ66979601	COMPLEX LGP880.AHASBK BK:Black -	
4	MCQ074200	Damper,Speaker	MCQ66979701	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
4	MCQ015701	Damper Connector	MCQ66979801	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
4	MCQ015702	Damper Connector	MCQ66979901	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
4	MCQ015703	Damper Connector	MCQ66980001	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
4	MCQ015706	Damper Connector	MCQ66980201	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
4	MCR000000	Decor	MCR64756702	PRESS AL press LGP880.AHASBK WH:WHITE WHITE -	
4	MEZ000900	Label,After Service	MEZ64319901	COMPLEX LGF120L.ALGTWA ZZ:Without Color F120I AS Label	
4	MFB029600	Lens,Flash	MFB62794201	MOLD PMMA LGP880.AHASBK BK:BLACK BLACK -	
4	MJN020800	Tape,Decor	MJN68122501	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
4	MJN000000	Tape	MJN68142501	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
4	MJN009400	Tape,Camera	MJN68142601	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
4	MCQ015707	Damper,Connector	MCQ66960401	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
3	ACQ003400	Cover Assembly,Bar	ACQ86121901	LGP880.ADEUWH WH:WHITE WHITE -	
7	CN100 CN101 CN104 CN105 CN106	Contact	MCIZ0008401	COMPLEX LG-C900 ATTDW ZZ:Without Color PRESS, BeCu, , 3.0, 1.2, 1.5,	
4	MCQ02	Damper	MCQ67075101	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
4	MCQ03	Damper	MCQ67040701	COMPLEX LGP880.ADEUWH ZZ:Without Color -	
4	MCQ04	Damper	MCQ67076201	COMPLEX LGP880.ADEUWH ZZ:Without Color -	
4	MCR00	Decor	MCR64756602	PRESS SUS press LGP880.AHASBK WH:WHITE WHITE -	
5	MJN04	Tape	MJN68142701	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
4	MDS04	Gasket	MDS64018201	COMPLEX LGP880.ADEUWH ZZ:Without Color -	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
4	MEV00	Insulator	MEV64175701	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
4	MEV01	Insulator	MEV64232101	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
4	MEZ003500	Label,Barcode	MEZ64327701	COMPLEX LGE730.ADEUKT ZZ:Without Color -	
4	MGJ00	Plate	MGJ63388201	COMPLEX LGP880.ADEUBK ZZ:Without Color -	
4	MGK00	Sheet	MHK63851801	COMPLEX LGP880.ADEUWH ZZ:Without Color -	
4	MHK01	Sheet	MHK63905101	COMPLEX LGP880.ADEUWH ZZ:Without Color -	
4	MJN05	Tape	MJN68153801	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
4	MJN06	Tape	MJN68161601	COMPLEX LGP880.ATMDWH ZZ:Without Color -	
4	MJN07	Tape	MJN68162701	COMPLEX LGP880.ADEUWH ZZ:Without Color -	
4	MJN08	Tape	MJN68177301	COMPLEX LGP880.ADEUWH ZZ:Without Color -	
4	ABA00	Bracket Assembly	ABA74308402	LGP880.AHASBK WH:WHITE WHITE -	
5	MJN000000	Tape	MJN68122801	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
5	MAZ000000	Bracket	MAZ63416101	MOLD PC LGP880.AHASBK BK:BLACK BLACK -	
4	ACQ01	Cover Assembly,Front	ACQ86030202	LGP880.AHASBK WH:WHITE WHITE -	
5	MCR000009	Decor	MCR64756302	MOLD PC LGP880.AHASBK WH:WHITE WHITE -	
5	MJN03	Tape,Window	MJN68122401	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
5	MJN000001	Tape	MJN68084101	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
5	MJN000000	Tape	MJN68084001	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
5	MDJ000001	Filter	MDJ63427801	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
5	MDJ000000	Filter	MDJ63427701	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
5	MCR000008	Decor	MCR64756502	MOLD PC LGP880.AHASBK WH:WHITE WHITE -	
5	MCR000007	Decor	MCR64756402	MOLD PC LGP880.AHASBK WH:WHITE WHITE -	
5	MCR000006	Decor	MCR64756202	MOLD PC LGP880.AHASBK WH:WHITE WHITE -	
5	MCR000005	Decor	MCR64756102	MOLD PC LGP880.AHASBK WH:WHITE WHITE -	
5	MCK032700	Cover,Front	MCK67187002	MOLD PC LGP880.AHASBK WH:WHITE WHITE -	
6	MET099500	INSERT,NUT	MICE0016902	MECH_COMMON ZY,ZZ,PRESS, STS, , , , ,	
5	MBG01	Button,Side	MBG64530702	MOLD PC LGP880.AHASBK WH:WHITE WHITE -	
5	MBG00	Button	MBG64530602	MOLD PC LGP880.AHASBK WH:WHITE WHITE -	
5	MEV000001	Insulator	MEV64270701	COMPLEX LGP880.ADEUWH ZZ:Without Color -	
5	MEV000003	Insulator	MEV64234201	COMPLEX LGP880.ADEUWH ZZ:Without Color -	
5	MEV000002	Insulator	MEV64234101	COMPLEX LGP880.ADEUWH ZZ:Without Color -	
5	MEV000000	Insulator	MEV64214701	COMPLEX LGP880.ATMDWH ZZ:Without Color -	
4	ADV00	Frame Assembly	ADV74326001	LGP880.AHASBK BK:BLACK BLACK -	
5	MJN000004	Tape	MJN68162801	COMPLEX LGP880.ADEUWH ZZ:Without Color -	
5	MCQ000000	Damper	MCQ67031201	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
5	MJN000000	Tape	MJN68123901	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
5	MJN000001	Tape	MJN68144801	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
5	MJN000003	Tape	MJN68151101	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
5	MBL000000	Cap	MBL65204101	MOLD URETHANE LGP880.AHASBK BK:BLACK BLACK -	
5	MCQ000001	Damper	MCQ67129001	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
5	MJN009400	Tape,Camera	MJN68084201	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
5	MEV000001	Insulator	MEV64234301	COMPLEX LGP880.ADEUWH ZZ:Without Color -	
5	MJN009401	Tape,Camera	MJN68084301	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
5	MET099500	INSERT,NUT	MICE0016902	MECH_COMMON ZY,ZZ,PRESS, STS, , , , ,	
5	MEV000000	Insulator	MEV64175601	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
5	MDS000000	Gasket	MDS64013301	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
5	MDQ000000	Frame	MDQ63199501	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
4	AGU00	Plate Assembly	AGU74008601	LGP880.AHASBK BK:BLACK BLACK -	
4	FAB00	Screw,Machine	FAB31625401	BH + 2.7mM 2.5mM MSWR WHITE N N	
4	GMEY01	Screw,Machine	GMEY0012901	GMEY0012901 FH + 1.4mM 2.5mM MSWR NI PLT N - LG ELECTRONICS INC.	
4	GMEY00	Screw,Machine	GMEY0014301	GMEY0014301 BH + 1.4mM 3.5mM MSWR NI PLT N - KUMGANG SCREW CO., LTD	
4	GMZZ00	Screw,Machine	GMZZ0019003	GMZZ0019003 FH + 1.4mM 1.5mM MSWR FZB N - SERVEONE CO., LTD.	
4	MBL01	Cap	MBL65204201	MOLD URETHANE LGP880.AHASBK BK:BLACK BLACK -	



## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
4	MBL00	Cap	MBL65204301	MOLD URETHANE LGP880.AHASBK BK:BLACK BLACK -	
4	MCQ01	Damper	MCQ67127901	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
4	MCQ00	Damper,Camera	MCQ67129401	COMPLEX LGP880.ADEUWH ZZ:Without Color -	
4	MDS00	Gasket	MDS63922501	COMPLEX LGP880.AHASBK BK:Black -	
4	MDS01	Gasket	MDS63980701	COMPLEX LGP880.AHASBK BK:Black -	
4	MDS02	Gasket	MDS64013401	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
4	MDS03	Gasket	MDS64072501	COMPLEX LGP880.AHASBK BK:Black -	
4	MHK00	Sheet,Operation	MHK63848701	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
4	MJN061100	Tape,Protect	MJN68155301	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
4	MJN00	Tape	MJN68159601	COMPLEX LGP880.ADEUWH ZZ:Without Color -	
4	MJN01	Tape,Window	MJN68159901	COMPLEX LGP880.ADEUWH ZZ:Without Color -	
4	MJN02	Tape,Window	MJN68169501	COMPLEX LGP880.AHASBK BK:Black -	
4	MEZ000000	Label	MLAZ0038303	COMPLEX LG-LC3200 WA:White PRINTING, PPRI PRINTING	
3	FAB00	Screw,Machine	FAB31625401	BH + 2.7mm 2.5mm MSWR WHITE N N	
5	ABM01	Can Assembly,Shield	ABM73856001	LGP880.AHASBK BK:BLACK BLACK -	
6	MBK070300	Can,Shield	MBK63234901	PRESS SUS 0.2t LGP880.AHASBK BK:BLACK BLACK -	
6	MEV000000	Insulator	MEV64168501	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
6	MDS000000	Gasket	MDS64072701	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
6	MCQ000000	Damper	MCQ67128101	COMPLEX LGP880.AHASBK ZZ:Without Color -	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	MDS000002	Gasket	MDS64017401	COMPLEX LGP880.ADEUWH ZZ:Without Color -	
6	MDS000003	Gasket	MDS63986001	COMPLEX LGP880.ADEUWH ZZ:Without Color -	
6	MDS000001	Gasket	MDS64017301	COMPLEX LGP880.ADEUWH ZZ:Without Color -	
8	ANT102 ANT103	Contact	MCE62333001	PRESS CU 0.1mm LGSU610.ASKTBK ZZ:Without Color NFC Antenna Contact	
5	ABM00	Can Assembly,Shield	ABM73816601	LGP880.AHASBK BK:Black -	
6	MCQ000000	Damper	MCQ67037401	COMPLEX LGP880.ADEUWH ZZ:Without Color -	
6	MBK070300	Can,Shield	MBK63235001	PRESS SUS 0.2t LGP880.AHASBK BK:BLACK BLACK -	
6	MEV000000	Insulator	MEV64168601	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
6	MJN000000	Tape	MJN68152201	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
5	MEZ000000	Label	MLAZ0038301	COMPLEX LG-VX6000 ZZ:Without Color PID Label 4 Array PRINTING,	
6	ABM02	Can Assembly,Shield	ABM73817001	LGP880.ADEUWH ZZ:Without Color -	
7	MBK070300	Can,Shield	MBK63234801	PRESS SUS 0.2t LGP880.AHASBK BK:BLACK BLACK -	
7	MJN000000	Tape	MJN68272301	COMPLEX LGP880.ADEUWH ZZ:Without Color -	
6	SC12001 SC12005 SC12010 SC12011 SC12012 SC12013 SC12014 SC12015 SC12016 SC12017 SC12018	Clip	MCGY0003801	COMPLEX LG-KH3900 KTF ZZ:Without Color -	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	SC12001 SC12005 SC12010 SC12011 SC12012 SC12013 SC12014 SC12015 SC12016 SC12017 SC12018	Clip	MCGY0003801	COMPLEX LG-KH3900 KTF ZZ:Without Color -	
6	SC12020	Can,Shield	MBK63234701	PRESS SUS 0.2t LGP880.AHASBK BK:BLACK BLACK -	
1	AGF000000	Package Assembly	AGF76583301	LGP880.ADEUWH ZZ:Without Color LGP880 COSMO1 DEU Palletizing_700ea	
2	MAY084001	Box,Unit	MAY65633902	COMPLEX LGP880.ADEUWH ZZ:Without Color LGP880_HC_Lower_Cosmo1	
2	MEZ003500	Label,Barcode	MEZ64187101	COMPLEX LGP920.ADEUML ZZ:Without Color -	
2	MEZ084100	Label,Unit Box	MEZ64506701	COMPLEX LGP880.ADEUWH ZZ:Without Color LGP880 DEU USP Label	
2	MEZ047200	Label,Master Box	MLAJ0004402	PRINTING CG300 CGR DG ZZ:Without Color LABEL MASTER BOX(for CGR TDR 2VER. mbox_label) GSM standard_master box label	
2	MEZ000000	Label	MLAZ0050901	COMPLEX KU990.AGBRBK ZZ:Without Color Battery Warning Label (Lithium ion Battery Label)	
2	MAY084000	Box,Unit	MAY65633901	COMPLEX LGP880.ADEUWH ZZ:Without Color LGP880_HC_Upper_Cosmo1	
2	MAY047100	Box,Master	MAY65217301	COMPLEX LGP920.AFRAML ZZ:Without Color COSMO 1 M/Box_LGP920_None_EU STD / CIS	
2	AGJ000000	Pallet Assembly	AGJ73398301	LGP920.ANLDML ZZ:Without Color COSMO1 STD Palletizing_700ea	
3	MAY010800	Box,Carton	MBEC0003012	COMPLEX LGP920.ANLDML ZZ:Without Color 1/700	
3	MBL007000	Cap,Box	MCCL0001710	COMPLEX LGP920.ANLDML ZZ:Without Color 2/700	
3	MGA000000	Pallet	MPCY0012403	COMPLEX KG800 FRABK DB:DARK BLUE -	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
1	AAD000000	Addition Assembly	AAD86058901	LGP880.ADEUWH WH:WHITE WHITE -	
3	ACQ004100	Cover Assembly,Battery	ACQ86030402	LGP880.AHASBK WH:WHITE WHITE -	
4	MHK053800	Sheet,Operation	MHK63803501	COMPLEX LGP880.AHASBK BK:BLACK BLACK -	
4	MCK004100	Cover,Battery	MCK67187202	MOLD PC LGP880.AHASBK WH:WHITE WHITE -	
4	MCR000000	Decor	MCR64616201	COMPLEX LGSU880.ASKTBK ZZ:Without Color -	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

### 12.2 ReplacementParts <Main component>

**Note:** This Chapter is used for reference, Part order is ordered by SBOM standard on GCSC

Level	LocationNo.	Description	PartNumber	Spec	Remark
4	EAA030100	PIFA Antenna,Multiple	EAA62769802	AKB-00069 MULTI -5DB 5 PPA Type LGP880(X3) Sub(GPS/WiFi ) white color MOBITECH CORPORATION	
4	EAA00	PIFA Antenna,Multiple	EAA62769902	479790006 MULTI -2DB 3 LDS Type LGP880(X3) main antenna white color HANKOOK MOLEX	
4	EAB00	Speaker Module	EAB62728302	EME1810AF02 Nd-Fe-B 700mW 8OHM 86DB 1.05KHZ 40 * 30 * 5.5, white FPCB EM-TECH	
4	EAD00	Cable,Assembly	EAD62153601	UFL-2LPVHF-04N1TC-A85ZLG UFL-LP-066 UFL-LP-066 0.085M 2 WHITE N N HIROSE KOREA CO.,LTD	
4	EAJ00	LCD,Module-TFT	EAJ62090201	DX12D100VM0EAA HD 4.7INCH 720X1280 550CD COLOR 70% 16/9 1000:1 60Hz Inverter N LED 2D Driver IC : R69328 HITACHI DISPLAYS.,LTD	
4	EBP01	Camera Module	EBP61601901	C8AA-Y412A C8AA-Y412A 8M AF(VCM), Sony(1/4") BSI, 8.5x8.5x4.75t, MIPI, FPCB, 0 degree LG INNOTEK CO., LTD	
4	EBP00	Camera Module	EBP61621801	CW1339 CW1339 1.3M Sony 1/7.8", 5x5x3.0t, FPCB 5mm, HD MIPI, 90deg, FOV 75deg, Conn. Bottom COWELL ELECTRONICS CO.,LTD	
4	EBR01	PCB Assembly,Flexible	EBR75729701	LGP880.AHASBK 1.0 Flexible	
5	EBR070400	PCB Assembly Flexible,SMT	EBR75729801	LGP880.AHASBK 1.0 Flexible	
6	EAX010700	PCB,Flexible	EAX64732701	LGP880.AHASBK 1.1 FR-4 Multi 3 0.21 Flexible	
6	EBR070300	PCB Assembly Flexible,SMT Top	EBR75730001	LGP880.AHASBK 1.0 Flexible	
7	CN100	Connector,BtoB	EAG63013801	GB042-14P-H10-E3000 14P 0.40MM STRAIGHT PLUG SMD R/TP 1M - LS Mtron Ltd.	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	EBR070200	PCB Assembly Flexible,SMT Bottom	EBR75745901	LGP880.AHASBK 1.0 Flexible	
7	C100 C101	Capacitor Ceramic,Chip	ECZH0001215	C1005X5R1A105KT000F 1uF 10% 10V X5R - 55TO+85C 1005 R/TP - TDK KOREA COOPERATION	
7	U100	IC,Ambient Light Sensor	EUSY0431901	APDS-9900 - - - - - AVAGO TECHNOLOGIES INTERNATIONAL SALES PTE. LIMITED	
7	J100	Jack,Phone	EAG62831701	KJA-PH-3-0176 4P 4P ANGLE R/TP 3.5M BLACK 5P 6.5x12.6x4.0t, Short Detect, All DIP type KSD CO., LTD	
4	EBR00	PCB Assembly,Flexible	EBR75745501	LGP880.AHASBK 1.0 Flexible	
5	EBR070400	PCB Assembly Flexible,SMT	EBR75745701	LGP880.AHASBK 1.0 Flexible	
6	EAX010700	PCB,Flexible	EAX64733001	LGP880.AHASBK 1.0 FR-4 Multi 5 0.3 Flexible	
6	EBR070200	PCB Assembly Flexible,SMT Bottom	EBR75730101	LGP880.AHASBK 1.0 Flexible	
7	R100 R101 R102	Resistor,Chip	ERHY0009502	MCR006YZPJ100 10OHM 5% 1/20W 0603 R/TP - ROHM.	
7	R103	Resistor,Chip	ERHY0009501	MCR006YZPJ000 0OHM 5% 1/20W 0603 R/TP - ROHM.	
7	D101 D102	Diode,TVS	EDTY0008606	PRSB6.8C 4.7V 5.7 11.5V 1A 10W DFN-2 R/TP 2P 1 PROTEK DEVICES INC.	
7	FL101	Filter,EMI/Power	SFEY0015301	NFM18PC104R1C3 ESD/EMI 0HZ 0.1uF 0H SMD R/TP MURATA MANUFACTURING CO.,LTD.	
7	R108	Resistor,Chip	ERHZ0000401	MCR01MZSJ000 0OHM 5% 1/16W 1005 R/TP - ROHM.	
7	L102 L103	Inductor Multilayer,Chip	ELCH0004711	1005GC2T22NJLF 22NH 5% - 200mA 0.8OHM 1.5GHZ 8 SHIELD NONE 1.0X0.5X0.5MM R/TP PILKOR ELECTRONICS LTD.	
7	VA102	Varistor	SEVY0004401	ICVL0518400V500FR 18V 0% 40pF 1.0*0.5*0.55 NONE SMD R/TP INNOCHIPS TECHNOLOGY	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
7	R106	Resistor,Chip	ERHZ0000517	MCR01MZP5J910 91OHM 5% 1/16W 1005 R/TP - ROHM.	
7	CN102	Connector,I/O	EAG63090001	04-5161-005-100-868 7P 0.90MM ANGLE RECEPTACLE DIP R/TP Normal New IO Connector KYOCERA ELCO KOREA SALES CO.,LTD.	
7	Q100	TR,Bipolar	EQBN0013701	NPN 6V 15V 12V 500mA 100mA 680 150mW EMT6 R/TP 6P	
7	C100	Inductor Multilayer,Chip	ELCH0003847	LQG15HS1N8S02D 1.8NH 0.3NH - 300mA 0.1OHM 6GHZ 8 SHIELD NONE 1.0X0.5X0.5MM R/TP MURATA MANUFACTURING CO.,LTD.	
7	L101	Capacitor Ceramic,Chip	ECZH0001002	C1005CH1H0R5BT000F 0.5pF 0.1PF 50V NP0 - 55TO+125C 1005 R/TP - TDK KOREA COOPERATION	
7	SW100	Connector,RF	ENWY0003901	U.FL-R-SMT(10) 1.90MM STRAIGHT SOCKET SMD T/REEL CU 50OHM 300mDB HIROSE KOREA CO.,LTD	
7	FB100	Filter,Bead	SFBH0008102	BLM15HD182SN1D 1800 ohm 1.0X0.5X0.5 25% 2.2 ohm 0.2A SMD R/TP 2P 0 MURATA MANUFACTURING CO.,LTD.	
6	EBR070300	PCB Assembly Flexible,SMT Top	EBR75746001	LGP880.AHASBK 1.0 Flexible	
7	LD100 LD101 LD102	LED,Chip	EDLH0015202	99-216UTC/TR8-1 WHITE 2.95~3.3 30mA 1440~1720mcd x, y 110mW - R/TP 2P - EVERLIGHT ELECTRONICS CO., LTD.	
7	CN103	Connector,BtoB	ENBY0056801	14-5804-024-000-829+ 24P 0.40MM STRAIGHT MALE SMD R/TP 900mM - KYOCERA ELCO KOREA SALES CO.,LTD.	
7	SUMY00	Microphone Condenser	SUMY0010616	SUMY0010616 FPCB,dB,1.1TO10V, KNOWLES ACOUSTICS	
4	EBD00	Touch Window Assembly	EBD61386602	TSMC-G435B CAPACITIVE TOUCH Glass(0.55t)/Film/Film Type (Touch Sensor 0.25t)_AR Coating Synaptics S3203 (48QFN_6x6x0.6 PKG Size, 22_Rx + 13_Tx + 1_Rx/Tx, 10 Finger) 4.7 inch Board To Board - LG INNOTEK.,LTD.	
3	EBR02	PCB Assembly,Main	EBR75753301	LGP880.ADEUWH 1.0 Main	



## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
4	EBR071500	PCB Assembly Main,Insert	EBR75818001	LGP880.ADEUWH 1.1 Main	
5	RAA050101	Resin	BRAH0002601	UNIQUE4000HFW ; , , , , [empty] , , , [empty] SERVEONE CO., LTD.	
5	EBR03	PCB Assembly Flexible	EBR75729601	LGP880.AHASBK 1.0 Flexible	
6	EBR070400	PCB Assembly Flexible,SMT	EBR75745601	LGP880.AHASBK 1.0 Flexible	
7	EBR070200	PCB Assembly Flexible,SMT Bottom	EBR75745801	LGP880.AHASBK 1.0 Flexible	
8	R101	Resistor,Chip	ERHY0009507	MCR006YZPJ105 1MOHM 5% 1/20W 0603 R/TP - ROHM.	
8	VA102	Varistor	SEVY0004401	ICVL0518400V500FR 18V 0% 40pF 1.0*0.5*0.55 NONE SMD R/TP INNOCHIPS TECHNOLOGY	
8	R112 R113	Resistor,Chip	ERHZ0000420	MCR01MZIP5J151 150OHM 5% 1/16W 1005 R/TP - ROHM.	
8	R102 R103 R104 R105 R106	Resistor,Chip	ERHY0009527	MCR006YZPJ473 47KOHM 5% 1/20W 0603 R/TP - ROHM.	
8	CN100	Socket,Card	EAG62830201	104031-0811 SD 8P ANGLE SMD R/TP 11.95x11.40x1.42t, Push-pull type MOLEX	
8	LD100	LED,Flash	EAV61593701	LXCL-EW06-4000 WHITE 3.6V 1A 230lm - - 2016 R/TP-T 2P Lumileds LUMILEDS LIGHTING U.S.,LLC	
8	C15021 C15027	Capacitor Ceramic,Chip	ECCH0009217	GRM0335C1E560J 56pF 5% 25V X7R - 55TO+125C 0603 R/TP - MURATA MANUFACTURING CO.,LTD.	
8	R100	Resistor Chip	ERHY0009526	MCR006YZPJ472 4.7KOHM 5% 1/20W 0603 R/TP - ROHM.	
8	C102 C106 C107	Capacitor Ceramic,Chip	ECCH0009101	C0603X5R0J104KT00NN 0.1uF 10% 6.3V X5R - 55TO+85C 0603 R/TP - TDK CORPORATION	
8	R108	Resistor,Chip	ERHY0009541	MCR006YZPF4700 470OHM 1% 1/20W 0603 R/TP - ROHM.	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
8	C104	Capacitor Ceramic,Chip	ECCH0002001	C1005JB0J104KT000F 0.1uF 10% 6.3V Y5P - 30TO+85C 1005 R/TP - TDK CORPORATION	
8	R111	Wire Pad,Short	SAFP0000501	LG-VS760 VRZ	
8	C105	Capacitor Ceramic,Chip	EAE62502901	CL05A106MP5NUNC 10uF 20% 10V X5R - 55TO+85C 1005 R/TP 0.55T max. SAMSUNG ELECTRO-MECHANICS CO., LTD.	
8	U100 U101 U102	Diode,TVS	EAH61733401	PESD5V0L5UK 5V 6.47V min. / 6.8V typ. / 7.14V max. 9.9V 3.1A 30W SOT891 R/TP 6P 5 NXP Semiconductors	
8	ZD100	Diode,TVS	EDTY0009401	VMNZ6.8CST2R 5.78V 0 10V 0A 100mW VMN2 R/TP 2P 1 ROHM.	
8	R109 R110	Resistor,Chip	ERHZ0000451	MCR01MZIP5J270 27OHM 5% 1/16W 1005 R/TP - ROHM.	
8	J100	Socket DIMM/SIMM	EAG63193601	SIMF006G2K55-00R 6P STRAIGHT STANDARD SMD T/REEL - SHENZHEN EVERWIN PRECISION TECHNOLOGY CO.,LTD.	
7	EBR070300	PCB Assembly Flexible,SMT Top	EBR75729901	LGP880.AHASBK 1.0 Flexible	
8	CN101	Connector,BtoB	ENBY0057401	14-5804-034-000-829+ 34,0.4 mm,STRAIGHT,gold,34,0.40MM,STRAIGHT,MALE, SMD,0.9T, KYOCERA ELCO KOREA SALES CO.,LTD.	
7	EAX010700	PCB,Flexible	EAX64747801	LGP880.AHASBK 1.0 FR-4 Multi 4 0.32 Flexible	
5	EAU00	Motor,DC	EAU61644401	MVMU-A360FG 2V 90mA 90mA 0RPM 0RPM 60mSEC 0GF.CM 26OHM LG INNOTEK CO., LTD	
5	EAB01	Receiver	EAB62491301	KR-1207-WB1P 30mW 32OHM 106DB 300HZTO7KHZ WIRE dualize EM tech RCV 1207x2.7T wideband RCV SURY0015202 , SPL improvement 106dB KIRYN TELECOM CO., LTD	
5	RAA050100	Resin,PC	BRAH0001301	UF2040 or 3075BHF . . NONE	
4	EBR071800	PCB Assembly Main,SMT	EBR75753401	LGP880.ADEUWH 1.0 Main	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
5	EBR071600	PCB Assembly Main,SMT Bottom	EBR75026301	LGP880.AHASBK 1.4 Main	
6	L11044	Inductor Multilayer,Chip	EAP62227301	LG HK 0603 2N2S-T 2.2NH 0.3NH - 360mA - - 0.19OHM 8.8GHZ 4 SHIELD - 0.6X0.3X0.3MM R/TP TAIYO YUDEN CO.,LTD	
6	C1063	Inductor Multilayer,Chip	EAP62186301	LQP03TG1N8C02D 1.8NH 0.2NH - 500mA - - 0.2OHM 6GHZ 13 SHIELD - 0.6X0.3X0.3MM R/TP MURATA MANUFACTURING CO.,LTD.	
6	L101	Capacitor Ceramic,Chip	ECZH0001002	C1005CH1H0R5BT000F 0.5pF 0.1PF 50V NP0 - 55TO+125C 1005 R/TP - TDK KOREA COOPERATION	
6	L12002	Inductor Multilayer,Chip	ELCH0001048	1005GC2T10NJLF 10NH 5% - 250mA 0.42OHM 2.5GHZ 8 SHIELD NONE 1.0X0.5X0.5MM R/TP PILKOR ELECTRONICS LTD.	
6	C11011 C9014	Capacitor Ceramic,Chip	ECCH0007805	CL05A106MQ5NUNC 10uF 20% 6.3V X5R - 55TO+85C 1005 R/TP 0.5+-0.05 SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	C11026	Capacitor Ceramic,Chip	ECCH0042201	CL03C020CA3GNNH 2pF 0.25PF 25V C0G - 55TO+125C 0603 R/TP 0.3+-0.03 SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	C1022 C1066 C1074 C11005 C11006 C11024 C13017 C4034 C9016 C9017	Capacitor Ceramic,Chip	ECCH0017601	CL05A475MQ5NRNC 4.7uF 20% 6.3V X5R - 55TO+85C 1005 R/TP 0.5MM SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	R2011	Resistor,Chip	ERHY0040202	RC0201FR-074R7L 4.7OHM 1% 1/20W 0603 R/TP - YAGEO CORPORATION	
6	C1060 C11007 C11008 C11010	Capacitor Ceramic,Chip	EAE62506501	CL05A475MP5NRNC 4.7uF 20% 10V X5R - 55TO+85C 1005 R/TP - SAMSUNG ELECTRO- MECHANICS CO., LTD.	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	C10006 C10015 C10017 C1058 C1062 C1067 C13005 C13008 C13026 C15002 C7002 C7003 C7004 C7013 C7014 C7015 C7016 C7017 C7018 C7019 C7020 C7021	Capacitor Ceramic,Chip	EAE62762301	CL03A105MP3NSNC 1uF 20% 10V X5R - 55TO+85C 0603 R/TP 0.33 MM SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	R10009 R1003 R13024 R3008 R3040 R3041 R6015 R7000 R8020 R8023 R9003	PCB ASSY MAIN,PAD SHORT	SAFP0000401	LG-LU3000 LGTBK,MAIN,A,	
6	C102 C106 C107	Capacitor Ceramic,Chip	ECCH0009101	C0603X5R0J104KT00NN 0.1uF 10% 6.3V X5R - 55TO+85C 0603 R/TP - TDK CORPORATION	
6	L1018 L1020 L1022	Inductor,Wire Wound,Chip	ELCP0008014	MIPSZ2012D4R7 4.7UH 30% - 280mA 0.28 0.7 0.23OHM - - SHIELD 2.0X1.2X0.9 NONE R/TP FDK CORPORATION.	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	C10011 C10014 C10016 C1023 C13006 C13007 C15004 C2006 C6022 C6031 C7001 C7005 C7006 C7007 C7008 C9004 C9009 C9011 C9012 C9015 C9018 C9019 C9022	Capacitor Ceramic,Chip	ECCH0017301	CL03A105MQ3CSNH 0.000001F 20% 6.3V X5R - 45TO+85C 0603 R/TP - SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	FB1001 FB11003 FB11004 FB13000 FB13001 FB13002 FB13003 FB7002 FB7003 FB7004 FB8002	Filter,Bead	EAM62071101	BLM15PD121SN1D 120 ohm 1.0X0.5X0.5 25% 0.09 ohm 1.3A SMD R/TP 2P 0 MURATA MANUFACTURING CO.,LTD.	
6	R3029 R7002	Resistor,Chip	ERHZ0000463	MCR01MZP5J330 33OHM 5% 1/16W 1005 R/TP - ROHM.	
6	R13006 R13007	Resistor,Chip	ERHZ0000235	MCR01MZP5F2000 200OHM 1% 1/16W 1005 R/TP - ROHM.	
6	R100 R101 R102	Resistor,Chip	ERHY0009502	MCR006YZPJ100 10OHM 5% 1/20W 0603 R/TP - ROHM.	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	C11001 C11002 C11004 C11025 C11029 C11056 C2038 C2039 C6002	Capacitor Ceramic,Chip	ECCH0009514	MCH032A(AN)100DK 10pF 0.5PF 25V X7R - 55TO+125C 0603 R/TP - ROHM.	
6	L9000	Inductor,Wire Wound,Chip	ELCP0008013	MIPSZ2012D2R2 2.2UH 30% - 700mA 0.77 0.7 0.23OHM -- SHIELD 2.0X1.2X1.0 MM NONE R/TP FDK CORPORATION.	
6	U10004	IC,Analog Switch	EUSY0317101	SLAS4717EPMTR2G - - - - WQFN R/TP 10P 1.8*1.4*0.75 ON SEMICONDUCTOR	
6	X11000	Crystal	EAW61645401	Q22FA1280013000 37.4MHZ 10PPM 12F , SMD R/TP EPSON TOYOCOM CORP	
6	CN9000	Connector,BtoB	ENBY0034201	GB042-24S-H10-E3000 24P 0.40MM STRAIGHT SOCKET SMD R/TP 1M - LS Mtron Ltd.	
6	FL8002 FL9000	Filter,EMI/Power	SFEY0016301	ICMEF112P900M COMMON MODE NOISE FILTER 0HZ 0F 0H SMD R/TP INNOCHIPS TECHNOLOGY	
6	C1004 C11020 C13000 C13001 C13010 C13015 C13020 C6021 C7022 C9005 C9006 C9007	Capacitor Ceramic,Chip	ECCH0007804	CL05A225MP5NSNC 2.2uF 20% 10V X5R - 55TO+85C 1005 R/TP 0.5MM SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	C1038	Capacitor Ceramic,Chip	ECCH0009211	GRM0335C1E3R3C 3.3pF 0.25PF 25V X7R - 55TO+125C 0603 R/TP - MURATA MANUFACTURING CO.,LTD.	
6	PT2000	Thermistor,NTC	SETY0006301	NCP15XH103J03RC 10KOHM 5% 0V 0A 3.35KK SMD P/TP 1005size MURATA MANUFACTURING CO.,LTD.	
6	C8003	Capacitor Ceramic,Chip	ECCH0000155	MCH153CN103KK 10nF 10% 16V X7R - 55TO+125C 1005 R/TP - ROHM Semiconductor KOREA CORPORATION	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	R3000 R3001 R3004 R3005 R3006 R3007 R3009 R3010 R3046 R3047	Resistor,Chip	ERHZ0000443	MCR01MZIP5J222 2.2KOHM 5% 1/16W 1005 R/TP - ROHM.	
6	CN8002	Connector,BtoB	EAG63013701	GB042-14S-H10-E3000 14P 0.40MM STRAIGHT SOCKET SMD R/TP 1M - LS Mtron Ltd.	
6	C1000 C1005 C1006 C1007	Capacitor Ceramic,Chip	ECCH0009201	GRM033R60J473KE19D 47nF 10% 6.3V X5R - 55TO+85C 0603 R/TP - MURATA MANUFACTURING CO.,LTD.	
6	U9002	IC,DC,DC Converter	EAN61850201	LM3559TLX 2.5 to 5.5V adj 0W MICRO SMD R/TP 16P - NATIONAL SEMICONDUCTOR ASIA PACIFIC PTE. LTD.	
6	R13009 R13010	Resistor,Chip	ERHY0009537	MCR006YZPF1503 150KOHM 1% 1/20W 0603 R/TP - ROHM.	
6	L2000 L2001	Inductor,Wire Wound,Chip	ELCP0008007	MIPS2520D3R3M 3.3UH 30% - 400mA 0.4 1 0.12OHM - - SHIELD 2.5X2X1MM NONE R/TP FDK CORPORATION.	
6	U1002	Module,Tx Module	SMRH0006901	RF6260 0DBM 0DB 0% 0A 0A 0DB 0DBM 0DBM 0P 0.0x0.0x0.0MM - RF MICRO DEVICES INC	
6	FB9000 FB9001 FB9002 FB9003	Filter,Bead	EAM62131001	CIM05J102NC 1000 ohm 1.0X0.5X0.5 25% 0.8 ohm 0.25 SMD R/TP 2P 0 SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	C11014 C2005 C2009 C2010 C2012 C2016 C2040	Capacitor Ceramic,Chip	ECCH0032801	GRM033R60J224M 0.00000022F 20% 6.3V X5R - 55TO+85C 0603 R/TP 0.3MM MURATA MANUFACTURING CO.,LTD.	
6	C1050 C1053 C8033	Capacitor Ceramic,Chip	ECZH0025916	GRM0335C1E330J 33pF 5% 25V NP0 - 55TO+125C 0603 R/TP - MURATA MANUFACTURING CO.,LTD.	



## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	R9007	Resistor,Chip	ERHZ0000405	MCR01MZP5J103 10KOHM 5% 1/16W 1005 R/TP - ROHM.	
6	X2000	Crystal	EXXY0026801	NX3215SA 32.768KHZ 20PPM 0F NONE SMD R/TP NIHON DEMPA KOGYO CO.,LTD.	
6	R100	Resistor,Chip	ERHY0009526	MCR006YZPJ472 4.7KOHM 5% 1/20W 0603 R/TP - ROHM.	
6	C10012 C1025 C1041 C11003 C11015 C11016 C11021 C11028 C11030 C11040 C11053 C2042	Capacitor Ceramic,Chip	EAE62286801	CL03A104KP3NNNC 0.0000001F 10% 10V X5R - 55TO+85C 0603 R/TP 0.3 SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	U2000	IC,MCP,NAND	EAN62327101	H9DA1GH25HAMMR-4EM NAND/1G SDRAM/256M 1.7VTO1.95V 9.0*8.0*1.0 TR 130P NAND+DDR SDRAM FBGA 1Gb NAND(48n,1die,2KB,x16,SLC,1bit)+256Mb DDR333(44n,1die,x16) HYNIX SEMICONDOCTOR	
6	R10004 R2013 R3024 R6017 R6025 R9001	Resistor,Chip	ERHY0009506	MCR006YZPJ104 100KOHM 5% 1/20W 0603 R/TP - ROHM.	
6	U1003	IC,MM PMIC	EUSY0264511	RF6590 CSP ,16 ,R/TP ,3B,2LDO,CSP,1.732X1.722 ,; ,IC,DC,DC Converter MICRO DEVICES, INC.	
6	R12006	Inductor Multilayer,Chip	ELCH0001403	LL1005-FHL1N0S 1NH 0.3NH - 400mA - - 0.1OHM 20GHZ 7 SHIELD NONE 1.0X0.5X0.5MM R/TP TOKO, INC.	
6	C11051	Capacitor Ceramic,Chip	ECCH0000113	MCH155A180J 18pF 5% 50V NP0 -55TO+125C 1005 R/TP - ROHM Semiconductor KOREA CORPORATION	
6	CN11000 CN11001 CN12000 CN12001	Connector Terminal Block	ENZY0018801	25SMT-4442-01 0P A-LOGICS STRAIGHT SMD R/TP - W.L.GORE & ASSOCIATES INC	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	L1008	Inductor Multilayer,Chip	EAP62226201	LQP03TG4N7J02D 4.7NH 5% - 250mA - - 0.72OHM 6GHZ 12 SHIELD - 0.6X0.3X0.3MM R/TP MURATA MANUFACTURING CO.,LTD.	
6	R11001	Resistor,Chip	ERHZ0000221	MCR01MZF5F1502 15KOHM 1% 1/16W 1005 R/TP - ROHM.	
6	R7001 R7004 R7005 R7006 R7007 R7008 R7009 R7010	Resistor,Chip	EBC61856101	RC0201JR-0722RL 22OHM 5% 1/20W 0603 R/TP - YAGEO CORPORATION	
6	FB100	Filter,Bead	SFBH0008102	BLM15HD182SN1D 1800 ohm 1.0X0.5X0.5 25% 2.2 ohm 0.2A SMD R/TP 2P 0 MURATA MANUFACTURING CO.,LTD.	
6	L1029	Inductor Multilayer,Chip	ELCH0003828	LQG15HS2N4S02D 2.4NH 0.3NH - 300mA 0.15OHM 6GHZ 8 SHIELD NONE 1.0X0.5X0.5MM R/TP MURATA MANUFACTURING CO.,LTD.	
6	R6022	Resistor,Chip	ERHY0035601	PMR10EZPFU10L0 0.01OHM 1% 1/2W 2012 R/TP - ROHM.	
6	U6004	IC,Motor Driver	EAN61968701	ISA1200 2.4~3.6V 3.3V 95W UQFN R/TP 18P - Auto Haptic Imagis Co.,Ltd.	
6	R5034	Resistor,Chip	ERHZ0000318	MCR01MZF5F8062 80.6KOHM 1% 1/16W 1005 R/TP - ROHM.	
6	L11003	Inductor Multilayer,Chip	EAP62108201	LQP03TG3N3C02D 3.3NH 0.2NH - 400mA - - 0.32OHM 6GHZ 13 SHIELD - 0.6X0.3X0.3MM R/TP MURATA MANUFACTURING CO.,LTD.	
6	C1028	Capacitor Ceramic,Chip	ECCH0009228	GRM033R61A472K 4700pF 10% 10V X5R - 55TO+85C 0603 R/TP - MURATA MANUFACTURING CO.,LTD.	
6	C1057 C2000 C2021	Capacitor Ceramic,Chip	ECCH0000198	CL05A225MQ5NSNC 2.2uF 20% 6.3V X5R - 55TO+85C 1005 R/TP . SAMSUNG ELECTRO- MECHANICS CO., LTD.	
6	VA10000 VA10001 VA10002 VA10003 VA9000 VA9001 VA9002	Varistor	SEVY0004301	ICVL0518100Y500FR 18V 0% 10F 1.0*0.5*0.55 NONE SMD R/TP INNOCHIPS TECHNOLOGY	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	D9000 D9001 D9002	Diode,TVS	EAH61634001	ESD7951ST5G 5V 5.4V min. 12.9V 1A 150mW 1A R/TP 2P 1 ON SEMICONDUCTOR	
6	U11000	Filter Separator,FEM	SMZY0028001	RF5501 - - - RF5501,QFN,12p,2.0*2.0*0.5,SP3T+LNA for BT/WiFi with BCM4325/29/30 RF MICRO DEVICES INC	
6	FL1	Filter,Duplexer	EAM62530601	B40251GY2045L - - - - - 8.6 x 3.6 x 1.0t QUAD SMD R/TP 50P KOREA TAIYO YUDEN.CO., LTD.	
6	C2013 C2014 C2015 C2041 C9002 C9028 C9029	Capacitor Ceramic,Chip	ECCH0007803	CL10A106MP8NNNC 10uF 20% 10V X5R - 55TO+85C 1608 R/TP 0.8MM SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	CN10001	Connector,BtoB	ENBY0051001	GB042-10S-H10-E3000 10P 0.4MM STRAIGHT FEMALE SMD R/TP 1M - LS Mtron Ltd.	
6	C1043 C1046	Capacitor Ceramic,Chip	ECCH0009506	MCH032A270JK 27pF 5% 25V NP0 -55TO+125C 0603 R/TP - ROHM.	
6	U10002 U15001	IC,LDO Voltage Regulator	EUSY0410201	BU30TD4WNVX ROHM.	
6	FL1001	Filter,Separator	EAM62450101	LMSP3XQS-C48 , , , 850,900,1800,1900,SP8T(SPI),3.2x2.8x1.0 MURATA MANUFACTURING CO.,LTD.	
6	CN6000	Connector,Terminal Block	EAG63270701	00 9254 004 030 868+ 4P 2.5MM STRAIGHT DIP T/REEL - KYOCERA ELCO KOREA SALES CO.,LTD.	
6	U10000	IC,Comparator	EAN62065901	MAX14579E 2.5~5.5V 2uA COMPARATOR TDFN R/TP 8P Headset Jack Detection IC with LDO, 15kV ESD MAXIM INTEGRATED PRODUCTS INC.	
6	C2023 C2025	Capacitor Low ESL	EAE62487001	LLL153C80J224ME14E 0.22uF 20% 6.3V X6S - 55TO+105C 1005 R/TP 0.35T max. MURATA MANUFACTURING CO.,LTD.	
6	FB7000 FB7001	Filter,Bead	SFBH0008105	BLM15BD182SN1D 1800 ohm 1.0X0.5X0.5 25% 1.4 ohm 0.1A SMD R/TP 2P 0 MURATA MANUFACTURING CO.,LTD.	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	U7000	IC,Audio Codec	EAN62114201	MAX98089 1.65~5.5V 2.05W WLP R/TP 63P nVidia AP30 Reference Codec MAXIM INTEGRATED PRODUCTS INC.	
6	C1030 C1044 C6001 C8004 C8008	Capacitor Ceramic,Chip	ECCH0009106	C0603X7R1C103KT 10nF 10% 10V X7R - 55TO+125C 0603 R/TP - TDK CORPORATION	
6	C1029	Capacitor Ceramic,Chip	ECCH0009110	C0603X7R0J223KT 22nF 10% 6.3V X7R - 55TO+125C 0603 R/TP - TDK CORPORATION	
6	R2015	PCB ASSY,MAIN PAD OPEN	SAFO0000401	AX3100 ATL SV_SHIPBACK,MAIN,A,0OHM DNI	
6	U10003 U13001	IC,LDO Voltage Regulator	EUSY0407501	BU18TD4WNVX SSON004,4,R/TP,1.8V 150mA Single LDO,IC,LDO Voltage RegulatorIC,LDO Voltage Regulator ROHM.	
6	R6023 R6024	Resistor,Chip	EBC62036001	RC0201FR-0710RL 10OHM 1% 1/20W 0603 R/TP - YAGEO CORPORATION	
6	CN9001	Connector,BtoB	ENBY0039601	GB042-20S-H10-E3000 20P 0.4MM STRAIGHT SOCKET SMD R/TP 1M - LS Mtron Ltd.	
6	FB11001 FB11002	Filter,Bead	EAM62070901	BLM03AX601SN1D 600 ohm 0.6X0.3X0.3 25% 0.85 ohm 0.25A SMD R/TP 2P 0 MURATA MANUFACTURING CO.,LTD.	
6	R9000 R9006	Resistor,Chip	ERHZ0000206	MCR01MZP5F10R0 10OHM 1% 1/16W 1005 R/TP - ROHM.	
6	R10002 R10005 R13004 R13011 R13012 R13013	Resistor,Chip	ERHY0009505	MCR006YZPJ103 10KOHM 5% 1/20W 0603 R/TP - ROHM.	
6	R1001 R1002 R5037	Resistor,Chip	ERHY0009503	MCR006YZPJ101 100OHM 5% 1/20W 0603 R/TP - ROHM.	
6	R7003 R8019	Resistor,Chip	ERHY0009303	MCR006YZPF1002 10KOHM 1% 1/20W 0603 R/TP - ROHM.	
6	C6003	Capacitor Ceramic,Chip	ECCH0009213	GRM0335C1E6R0D 6pF 0.5PF 25V X7R - 55TO+125C 0603 R/TP - MURATA MANUFACTURING CO.,LTD.	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	L1000	Inductor Multilayer,Chip	ELCH0001430	LL1005-FHLR10J 100NH 5% - 150mA 2.2OHM 1.03GHZ 10 SHIELD NONE 1.0X0.5X0.5MM R/TP TOKO, INC.	
6	ZD10005 ZD8001 ZD8002 ZD8007	Diode,TVS	EDTY0009101	ESD9X5.0ST5G 5V 6.2 12.3V 8.7A 107W SOD528 R/TP 2P 1 ON SEMICONDUCTOR	
6	L1021 L1023	Inductor Multilayer,Chip	ELCH0009105	0402CS-18NXJEW 18NH 5% - 420mA 0.23OHM 3.1GHZ 25 NON SHIELD NONE 1.19X0.64X0.66MM R/TP COILCRAFT SINGAPORE PTE LTD.	
6	CN8003	Connector,BtoB	ENBY0056901	24-5804-024-000-829+ 24P 0.40MM STRAIGHT FEMALE SMD R/TP 900mM - KYOCERA ELCO KOREA SALES CO.,LTD.	
6	C8007	Capacitor Ceramic,Chip	ECCH0004904	GRM155R60J105K 1uF 10% 6.3V X5R -55TO+85C 1005 R/TP - MURATA MANUFACTURING CO.,LTD.	
6	FL1000	Filter,Saw	SFSY0035004	B9469 2140 MHz,1.4*1.1*0.45,SMD,2110M~2170M,IL 2.5,5pin,U-B,50-100,BAND I DIVERSITY,2140MHz,1.4*1.1*0.45,SMD,R/TP EPCOS PTE LTD.	
6	C11022	Capacitor Ceramic,Chip	ECCH0009102	C0603X7R1H221KT 220pF 10% 50V X7R - 55TO+125C 0603 R/TP - TDK CORPORATION	
6	U11001	IC,WiFi	EAN61956801	BCM4330XB2KFFBG WiFi(11b/g/n_2.4GHz and 5GHz Dual)+BT4.0+HS+FM(Rx/Tx), FCBGA, 6.5x6.5x1.0, 0.5pitch, 65nm FCBGA R/TP 144P BROADCOM ASIA DISTRIBUTION PTE LTD	
6	C1040	Capacitor Ceramic,Chip	ECZH0001216	C1005X5R1A224KT000E 220nF 10% 10V X5R - 55TO+85C 1005 R/TP - TDK KOREA COOPERATION	
6	R102 R103 R104 R105 R106	Resistor,Chip	ERHY0009527	MCR006YZPJ473 47KOHM 5% 1/20W 0603 R/TP - ROHM.	
6	C2017 C2018	Capacitor Ceramic,Chip	ECCH0017501	CL10A226MQ8NRNE 22uF 20% 6.3V X5R - 55TO+85C 1608 R/TP 0.8MM SAMSUNG ELECTRO-MECHANICS CO., LTD.	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	C1059	Inductor Multilayer,Chip	EAP62108001	LQP03TG2N2C02D 2.2NH 0.2NH - 450mA - - 0.25OHM 6GHZ 13 SHIELD - 0.6X0.3X0.3MM R/TP MURATA MANUFACTURING CO.,LTD.	
6	FL8001 FL8003 FL9001 FL9002	Filter,EMI/Power	SFEY0015901	ICMEF214P101MFR ICMEF214P101MFR ICMEF214P101MFR,SMD ,ESD Common mode Filter INNOCHIPS TECHNOLOGY INNOCHIPS TECHNOLOGY	
6	R9002	Resistor,Chip	ERHZ0000486	MCR01MZP5J473 47KOHM 5% 1/16W 1005 R/TP - ROHM.	
6	C105	Capacitor Ceramic,Chip	EAE62502901	CL05A106MP5NUNC 10uF 20% 10V X5R - 55TO+85C 1005 R/TP 0.55T max. SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	C9025	Capacitor Ceramic,Chip	ECCH0010501	GRM1555C1H7R5D 7.5pF 0.5PF 50V C0G - 55TO+125C 1005 R/TP - MURATA MANUFACTURING CO.,LTD.	
6	C1084 C11012 C12014	Capacitor Ceramic,Chip	ECZH0000813	C1005C0G1H101JT 100pF 5% 50V C0G - 55TO+125C 1005 R/TP - TDK KOREA COOPERATION	
6	U13005	IC,Analog Switch	EAN61839701	FSA3200UMX 3.0~4.3V 30NSEC 25NSEC 0W MLP R/TP 16P 1 FAIRCHILD SEMICONDUCTOR HONG KONG LTD.	
6	U2001	IC,Digital Baseband Processor,3G	EUSY0432001	PMB9811 1.7VTO2V,1.7VTO2V,1.7VTO2V 100mW 300P - BGA P/TP 300P INFINEON TECHNOLOGIES (ASIA PACIFIC) PTE LTD.	
6	U6006	IC,Current Monitor	EAN62344201	HPA01112AIRGTR o to 28V adj 0W QFN R/TP 16P - TEXAS INSTRUMENTS KOREA LTD, HONGKONG BRANCH.	
6	FB7005 FB7006	Filter,Bead	SFBH0008101	BLM15AG601SN1D 600 ohm 1.0X0.5X0.5 25% 0.6 ohm 0.3A SMD R/TP 2P 0 MURATA MANUFACTURING CO.,LTD.	
6	Q2000	FET	EQFP0003601	NTJD4105CT1G P-CHANNEL MOSFET 20V +-12 660mA 0.63OHM 270mW SC70 R/TP 6P ON SEMICONDUCTOR	
6	FB2000 FB2001	Filter,Bead	EAM62150301	CIM05J600NC 60 ohm 1.0X0.5X0.5 25% 0.2 ohm 0.65A SMD R/TP 2P 0 SAMSUNG ELECTRO- MECHANICS CO., LTD.	
6	C1064 C1065	Capacitor Ceramic,Chip	ECCH0006201	C1608X5R0J475KT000N 4.7uF 10% 6.3V X5R - 55TO+85C 1608 R/TP - TDK CORPORATION	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	C11052	Capacitor Ceramic,Chip	ECCH0000112	MCH155C150J 15pF 5% 50V NP0 -55TO+125C 1005 R/TP - ROHM Semiconductor KOREA CORPORATION	
6	C5038 C6030	Capacitor Ceramic,Chip	ECCH0034801	CL03A474MQ3NNNH 0.47uF -20TO20% 6.3V X5R -55TO+85C 0603 R/TP 0.3+-0.03 SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	FL8004	Filter,EMI/Power	EAM62272401	ICMEF112P500MFR COMMON MODE NOISE FILTER 0HZ 0.0000000000001F 0H SMD R/TP - INNOCHIPS TECHNOLOGY	
6	FL11000	Filter,Separator	EAM62251301	LFD182G45DCHD277 0.54 30 - 5GHz BPF, 2.4GHz LPF MURATA MANUFACTURING CO.,LTD.	
6	CN8000	Connector,BtoB	ENBY0040701	GB042-30S-H10-E3000 30P 0.4MM STRAIGHT FEMALE SMD R/TP 1M - LS Mtron Ltd.	
6	C1048	Inductor Multilayer,Chip	EAP62226301	LQP03TG5N6J02D 5.6NH 5% - 250mA - - 0.88OHM 6GHZ 12 SHIELD - 0.6X0.3X0.3MM R/TP MURATA MANUFACTURING CO.,LTD.	
6	C1020 C1027	Capacitor Ceramic,Chip	ECZH0001108	C1005X7R1E682KT000F 6.8nF 10% 25V X7R - 55TO+125C 1005 R/TP - TDK KOREA COOPERATION	
6	R10006	Resistor,Chip	ERHY0009516	MCR006YZPJ222 2.2KOHM 5% 1/20W 0603 R/TP - ROHM.	
6	FB1000	Filter,Bead	EAM62070801	BLM15EG221SN1D 220 ohm 1.0X0.5X0.5 25% 0.28 ohm 0.7A SMD R/TP 2P 0 MURATA MANUFACTURING CO.,LTD.	
6	R11003	Resistor,Chip	ERHY0009515	MCR006YZPJ221 220OHM 5% 1/20W 0603 R/TP - ROHM.	
6	L1014	Inductor Multilayer,Chip	EAP62226801	LQP03TN56NJ02D 56NH 5% - 100mA - - 3.9OHM 1.2GHZ 9 SHIELD - 0.6X0.3X0.3MM R/TP MURATA MANUFACTURING CO.,LTD.	
6	C1031 C1032 C1034 C1036 C1045 C1047 C6000	Capacitor Ceramic,Chip	ECCH0009103	C0603C0G1H101JT00NN 100pF 5% 50V C0G - 55TO+125C 0603 R/TP - TDK CORPORATION	
6	C10007	Capacitor Ceramic,Chip	EAE62762401	CL03A224KP3NNNC 220nF 10% 10V X5R - 55TO+85C 0603 R/TP 0.33 MM SAMSUNG ELECTRO-MECHANICS CO., LTD.	



## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	FB11005	Filter,Bead	SFBH0007103	BLM15BB750SN1D 75 ohm 1.0X0.5X0.5 25% 0.4 ohm 0.3A SMD R/TP 2P 0 MURATA MANUFACTURING CO.,LTD.	
6	L1027 L1028	Capacitor Ceramic,Chip	ECZH0000802	C1005C0G1H010CT 1pF 0.25PF 50V NP0 - 55TO+125C 1005 R/TP - TDK KOREA COOPERATION	
6	U13002	IC,LDO Voltage Regulator	EUSY0407201	BU33TD4WNVX SSON004,4,R/TP,3.3V 150mA Single LDO,IC,LDO Voltage RegulatorIC,LDO Voltage Regulator ROHM.	
6	U1000	IC,RF Transceiver,3G	EUSY0432901	PMB5712 XMM6260 RFIC ,; ,IC,Tx/Rx WFWLB R/TP 138P INFINEON TECHNOLOGIES (ASIA PACIFIC) PTE LTD.	
6	C1051	Capacitor Ceramic,Chip	ECCH0009104	C0603C0G1H330JT00NN 33pF 5% 50V C0G - 55TO+125C 0603 R/TP - TDK CORPORATION	
6	C11013	Capacitor Ceramic,Chip	ECCH0009504	MCH032A180JK 18pF 5% 25V NP0 -55TO+125C 0603 R/TP - ROHM.	
6	L11001	Inductor,Wire Wound,Chip	ELCP0008017	CIG21L2R2MNE 2.2UH 20% - 500mA 0.5 0.95 0.16OHM - - SHIELD 2X1.25X1MM NONE R/TP SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	C1083	Inductor Multilayer,Chip	ELCH0004704	1005GC2T4N7SLF 4.7NH 0.3NH - 300mA 0.23OHM 3.5GHZ 8 SHIELD NONE 1.0X0.5X0.5MM R/TP PILKOR ELECTRONICS LTD.	
6	U2002	IC,Analog Switch	EUSY0186504	FSA2259UMX QFN ,8 ,R/TP ,Dual SPDT ,; ,IC,Analog Switch FAIRCHILD SEMICONDUCTOR	
6	R2012	Resistor,Chip	ERHY0035301	RC1005F4021CS 4.02KOHM 1% 1/16W 1005 R/TP - SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	R6016	Resistor,Chip	ERHY0009553	MCR006YZPF1004 1MOHM 1% 1/20W 0603 R/TP - ROHM Semiconductor KOREA CORPORATION	
6	C1026 C8001	Capacitor Ceramic,Chip	ECZH0025920	GRM033R71C102K 1nF 10% 16V X7R - 55TO+125C 0603 R/TP - MURATA MANUFACTURING CO.,LTD.	
6	C1037 L11004	Inductor Multilayer,Chip	EAP62226001	LQP03TG1N2C02D 1.2NH 0.2NH - 600mA - - 0.15OHM 6GHZ 13 SHIELD - 0.6X0.3X0.3MM R/TP MURATA MANUFACTURING CO.,LTD.	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	SW1001	Connector,RF	ENWY0008701	MS-156C NONE STRAIGHT SOCKET SMD T/REEL AU 50OHM 400mDB HIROSE KOREA CO.,LTD	
6	U11002	Module,Tx Module	EAT61473401	MDFE2PFA-023 10DBM 32DB 0% 0A 0A 0DB 0DBM 0DBM 16P 2.5x2.5x0.4MM 5GHz WiFi, SPDT+LNA+PA MURATA MANUFACTURING CO.,LTD.	
6	C1019	Inductor Multilayer,Chip	ELCH0004720	1005GC2T1N2SLF 1.2NH 0.3NH - 300mA - - 0.12OHM 9GHZ 8 SHIELD NONE 1.0X0.5X0.5MM R/TP PILKOR ELECTRONICS LTD.	
6	U100 U101 U102	Diode,TVS	EAH61733401	PESD5V0L5UK 5V 6.47V min. / 6.8V typ. / 7.14V max. 9.9V 3.1A 30W SOT891 R/TP 6P 5 NXP Semiconductors	
6	C6023	Capacitor Ceramic,Chip	ECZH0001120	CC1005X7R1H392KT000F 3.9nF 10% 50V X7R - 55TO+125C 1005 R/TP - TDK KOREA COOPERATION	
6	C11045	Capacitor Ceramic,Chip	ECCH0009208	GRM0335C1ER50C 0.5pF 0.25PF 25V X7R - 55TO+125C 0603 R/TP - MURATA MANUFACTURING CO.,LTD.	
6	R13001	Resistor,Chip	ERHZ0000407	MCR01MZP5J105 1MOHM 5% 1/16W 1005 R/TP - ROHM.	
6	CN8001	Connector,BtoB	ENBY0057501	24-5804-034-000-829+ 34,0.4 mm,STRAIGHT,gold,34,0.40MM,STRAIGHT,FEMA LE,SMD,0.9T, KYOCERA ELCO KOREA SALES CO.,LTD.	
6	X1000	Oscillator VCTCXO	EAW61443801	1XXA26000FBA 26MHZ 1PPM 1.8V 2.5x2.0x0.8MM ; SMD R/TP DAISHINKU CORPORATION.	
6	C100 C101	Capacitor Ceramic,Chip	ECZH0001215	C1005X5R1A105KT000F 1uF 10% 10V X5R - 55TO+85C 1005 R/TP - TDK KOREA COOPERATION	
6	FB11000	Filter,Bead	EAM62230101	BLM03AX121SN1 120 ohm 0.6X0.3X0.3 25% 0.23 ohm 0.45A SMD R/TP 2P 0 MURATA MANUFACTURING CO.,LTD.	
6	C1049	Inductor Multilayer,Chip	EAP62108401	LQP03TG12NJ02D 12NH 5% - 180mA - - 1.78OHM 3.7GHZ 11 SHIELD - 0.6X0.3X0.3MM R/TP MURATA MANUFACTURING CO.,LTD.	
6	L1002	Inductor Multilayer,Chip	EAP62108901	LQP03TN47NJ02D 47NH 5% - 100mA - - 3.6OHM 1.3GHZ 9 SHIELD - 0.6X0.3X0.3MM R/TP MURATA MANUFACTURING CO.,LTD.	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	L9001	Inductor,Wire Wound,Chip	ELCP0009408	LQM2HPN1R0MG0 1UH 20% - 1A 1 1.6 0.055OHM - - SHIELD 2.5X2X1MM NONE R/TP MURATA MANUFACTURING CO.,LTD.	
6	FL11001	Filter,Ceramic	EAM62250401	LFB212G45CG7D227 BPF 2.45KHZ 100Hz SMD R/TP 3P MURATA MANUFACTURING CO.,LTD.	
6	L8001	Inductor Multilayer,Chip	ELCH0001444	0402AF-101XJEW 100NH 5% - 900mA 0.16OHM 1.4GHZ 8 NON SHIELD NONE 1.12X0.66X0.66MM R/TP COILCRAFT SINGAPORE PTE LTD.	
6	C1033 C1052	Inductor Multilayer,Chip	EAP62226901	LG HK 0603 1N0S-T 1NH 0.3NH - 470mA - - 0.11OHM 10GHZ 4 SHIELD - 0.6X0.3X0.3MM R/TP TAIYO YUDEN CO.,LTD	
6	ZD8003	Diode,TVS	EDTY0012102	PESD5V0V1BL 5V 5.8V min. 12.5V 4.8A 45W SOD-882 R/TP 2P 1 STC CORP.	
6	L11002	Inductor Multilayer,Chip	EAP61747501	LQP03TN3N6B02D 3.6NH 0.1NH - 400mA - - 0.3OHM 6GHZ 14 SHIELD NONE 0.6X0.3X0.3MM R/TP MURATA MANUFACTURING CO.,LTD.	
6	C1035 L11045	Inductor Multilayer,Chip	EAP62227101	LG HK 0603 1N5S-T 1.5H 0.3NH - 430mA - - 0.13OHM 10GHZ 4 SHIELD - 0.6X0.3X0.3MM R/TP TAIYO YUDEN CO.,LTD	
6	C11049	Capacitor Ceramic,Chip	ECCH0009212	GRM0335C1E4R7C 4.7pF 0.25PF 25V X7R - 55TO+125C 0603 R/TP - MURATA MANUFACTURING CO.,LTD.	
6	VA5000	Varistor	SEVY0003601	ICVL0505101V150FR 5.6V 0% 100pF 1.0*0.5*0.55 NONE SMD R/TP INNOCHIPS TECHNOLOGY	
6	C11046	Capacitor Ceramic,Chip	ECCH0009209	GRM0335C1E1R0C 1pF 0.25PF 25V X7R - 55TO+125C 0603 R/TP - MURATA MANUFACTURING CO.,LTD.	
6	U13003	IC,Signal Bridge	EAN62095001	SI9244 MHL-to-HDMI bridge,3.5x3.5, 1 MHz, 5 pin BGA R/TP 49P Silicon Image International BV	
6	U9000	IC,MM PMIC	EUSY0227205	LP8720TLX 2.7 To 5.5V Adj 1.2W CSP R/TP 20P - NATIONAL SEMICONDUCTOR ASIA PACIFIC PTE. LTD.	
6	SW100	Connector,RF	ENWY0003901	U.FL-R-SMT(10) 1.90MM STRAIGHT SOCKET SMD T/REEL CU 50OHM 300mDB HIROSE KOREA CO.,LTD	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
5	EBR071700	PCB Assembly Main,SMT Top	EBR75068301	LGP880.AHASBK 1.1 Main	
6	EAX010000	PCB,Main	EAX64732401	LGP880.AHASBK 1.1 FR-4 Any Layer 12 0.8 Main	
6	R100	Resistor,Chip	ERHY0009526	MCR006YZPJ472 4.7KOHM 5% 1/20W 0603 R/TP - ROHM.	
6	C102 C106 C107	Capacitor Ceramic,Chip	ECCH0009101	C0603X5R0J104KT00NN 0.1uF 10% 6.3V X5R - 55TO+85C 0603 R/TP - TDK CORPORATION	
6	C1040	Capacitor Ceramic,Chip	ECZH0001216	C1005X5R1A224KT000E 220nF 10% 10V X5R - 55TO+85C 1005 R/TP - TDK KOREA COOPERATION	
6	C1022 C1066 C1074 C11005 C11006 C11024 C13017 C4034 C9016 C9017	Capacitor Ceramic,Chip	ECCH0017601	CL05A475MQ5NRNC 4.7uF 20% 6.3V X5R - 55TO+85C 1005 R/TP 0.5MM SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	R10002 R10005 R13004 R13011 R13012 R13013	Resistor,Chip	ERHY0009505	MCR006YZPJ103 10KOHM 5% 1/20W 0603 R/TP - ROHM.	
6	FB7000 FB7001	Filter,Bead	SFBH0008105	BLM15BD182SN1D 1800 ohm 1.0X0.5X0.5 25% 1.4 ohm 0.1A SMD R/TP 2P 0 MURATA MANUFACTURING CO.,LTD.	
6	X2000	Crystal	EXXY0026801	NX3215SA 32.768KHZ 20PPM 0F NONE SMD R/TP NIHON DEMPA KOGYO CO.,LTD.	
6	L12000	Inductor Multilayer,Chip	ELCH0004721	1005GC2T2N2SLF 2.2NH 0.3NH - 300mA - - 0.16OHM 6GHZ 8 SHIELD NONE 1.0X0.5X0.5MM R/TP PILKOR ELECTRONICS LTD.	
6	U6000	IC,Charger	EAN62109401	MAX8971EWP 4 to 14V adj 1.4W CSP R/TP 20P - MAXIM INTEGRATED PRODUCTS INC.	
6	L5002 L5003 L6000	Inductor,Wire Wound,Chip	ELCP0014301	1239AS-H-1R0N=P2 1UH 30% - 2.3A 3.0 2.3 0.059OHM - - SHIELD 2.5X2.0X1.2MM NONE R/TP TOKO, INC.	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	C1050 C1053 C8033	Capacitor Ceramic,Chip	ECZH0025916	GRM0335C1E330J 33pF 5% 25V NP0 - 55TO+125C 0603 R/TP - MURATA MANUFACTURING CO.,LTD.	
6	C1031 C1032 C1034 C1036 C1045 C1047 C6000	Capacitor Ceramic,Chip	ECCH0009103	C0603C0G1H101JT00NN 100pF 5% 50V C0G - 55TO+125C 0603 R/TP - TDK CORPORATION	
6	C10006 C10015 C10017 C1058 C1062 C1067 C13005 C13008 C13026 C15002 C7002 C7003 C7004 C7013 C7014 C7015 C7016 C7017 C7018 C7019 C7020 C7021	Capacitor Ceramic,Chip	EAE62762301	CL03A105MP3NSNC 1uF 20% 10V X5R - 55TO+85C 0603 R/TP 0.33 MM SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	R6014	Resistor,Chip	EBC62155701	UCR03EWPFSR047 0.047OHM 1% 1/4W 1608 R/TP - ROHM CO.,LTD.	
6	U10002 U15001	IC,LDO Voltage Regulator	EUSY0410201	BU30TD4WNVX ROHM.	
6	X12000	Oscillator,TCXO	EAW61824401	1XXB26000CAC 26MHZ 0.5PPM 1.8V 2.5x2.0x0.8MM _ SMD R/TP DAISHINKU CORPORATION.	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	C10011 C10014 C10016 C1023 C13006 C13007 C15004 C2006 C6022 C6031 C7001 C7005 C7006 C7007 C7008 C9004 C9009 C9011 C9012 C9015 C9018 C9019 C9022	Capacitor Ceramic,Chip	ECCH0017301	CL03A105MQ3CSNH 0.000001F 20% 6.3V X5R - 45TO+85C 0603 R/TP - SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	R5013 R5014 R5015	Resistor,Chip	ERHZ0000249	MCR01MZF5F22R0 22OHM 1% 1/16W 1005 R/TP - ROHM.	
6	U12002	IC,GPS	EAN62399001	CSRG05TA03-ICJE-R GPS, Glonass, Size:3.11*2.20*0.6mm,IC WLCSP R/TP 34P CSR	
6	U14003	IC,Serializer/Deserializer	EAN62222401	SSD2825G44R RGB To DSI 4lane BGA R/TP 64P SOLOMON SYSTECH LTD	
6	R3000 R3001 R3004 R3005 R3006 R3007 R3009 R3010 R3046 R3047	Resistor,Chip	ERHZ0000443	MCR01MZF5J222 2.2KOHM 5% 1/16W 1005 R/TP - ROHM.	
6	L15000 L15001	Inductor Multilayer,Chip	ELCH0003822	LQM18NNR56K00D 560NH 10% - 35mA - - 1.55OHM 95MHZ 15 SHIELD NONE 1.6X0.8X0.8MM R/TP MURATA MANUFACTURING CO.,LTD.	
6	ZD8004	Diode,TVS	EDTY0008602	PSD12-LF 12V 13.3 25.9V 21A 500W SOD323 R/TP 2P 1 PROTEK DEVICES INC.	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	R10004 R2013 R3024 R6017 R6025 R9001	Resistor,Chip	ERHY0009506	MCR006YZPJ104 100KOHM 5% 1/20W 0603 R/TP - ROHM.	
6	C11011 C9014	Capacitor Ceramic,Chip	ECCH0007805	CL05A106MQ5NUNC 10uF 20% 6.3V X5R - 55TO+85C 1005 R/TP 0.5+-0.05 SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	C15014	Capacitor Ceramic,Chip	ECCH0000147	MCH155CN222KK 2.2nF 10% 50V X7R - 55TO+125C 1005 R/TP - ROHM.	
6	R10009 R1003 R13024 R3008 R3040 R3041 R6015 R7000 R8020 R8023 R9003	PCB ASSY MAIN,PAD SHORT	SAFP0000401	LG-LU3000 LGTBK,MAIN,A,	
6	R3026 R3027	Resistor,Chip	ERHZ0000270	MCR01MZF5F33R0 33OHM 1% 1/16W 1005 R/TP - ROHM.	
6	C12012	Capacitor Ceramic,Chip	ECCH0001001	C1005C0G1H6R8CT000F 6.8pF 0.25PF 50V NP0 - 55TO+125C 1005 R/TP - TDK KOREA COOPERATION	
6	R14006 R14007 R8011 R8012	Resistor,Chip	ERHY0009518	MCR006YZPJ224 220KOHM 5% 1/20W 0603 R/TP - ROHM.	
6	C3000 C3001	Capacitor Ceramic,Chip	ECZH0000839	C1005C0G1H4R7CT000F 4.7pF 0.25PF 50V NP0 - 55TO+125C 1005 R/TP - TDK KOREA COOPERATION	
6	L10001 L10002	Inductor Multilayer,Chip	EAP61866701	LG HK0603 82NJ-T 82NH 5% - 70mA - - 3.37OHM 1GHZ 4 SHIELD 0 0.6X0.3X0.3MM R/TP TAIYO YUDEN CO.,LTD	
6	R3036	Resistor,Chip	ERHZ0000291	MCR01MZF5F49R9 49.9OHM 1% 1/16W 1005 R/TP - ROHM.	
6	R10006	Resistor,Chip	ERHY0009516	MCR006YZPJ222 2.2KOHM 5% 1/20W 0603 R/TP - ROHM.	



## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	FB1001 FB11003 FB11004 FB13000 FB13001 FB13002 FB13003 FB7002 FB7003 FB7004 FB8002	Filter,Bead	EAM62071101	BLM15PD121SN1D 120 ohm 1.0X0.5X0.5 25% 0.09 ohm 1.3A SMD R/TP 2P 0 MURATA MANUFACTURING CO.,LTD.	
6	C12017	Capacitor Ceramic,Chip	ECCH0033301	GRM1555C1H680F 68pF 1% 50V C0G - 55TO+125C 1005 R/TP - MURATA MANUFACTURING CO.,LTD.	
6	R4010 R4011 R4016 R4017	Resistor,Chip	ERHY0024201	RC1005F6041CS 6.04KOHM 1% 1/16W 1005 R/TP - SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	C8007	Capacitor Ceramic,Chip	ECCH0004904	GRM155R60J105K 1uF 10% 6.3V X5R -55TO+85C 1005 R/TP - MURATA MANUFACTURING CO.,LTD.	
6	C1057 C2000 C2021	Capacitor Ceramic,Chip	ECCH0000198	CL05A225MQ5NSNC 2.2uF 20% 6.3V X5R - 55TO+85C 1005 R/TP . SAMSUNG ELECTRO- MECHANICS CO., LTD.	
6	D9000 D9001 D9002	Diode,TVS	EAH61634001	ESD7951ST5G 5V 5.4V min. 12.9V 1A 150mW 1A R/TP 2P 1 ON SEMICONDUCTOR	
6	C15017 C15031	Capacitor Ceramic,Chip	ECCH0000122	MCH155A470JK 47pF 5% 50V NP0 -55TO+125C 1005 R/TP - ROHM Semiconductor KOREA CORPORATION	
6	SUMY01	Microphone Condenser	SUMY0010609	SPU0410HR5H -PB SPU0410HR5H -PB SPU0410HR5H -PB,UNIT ,-42 dB,3.76*2.95*1.1 ,mems smd mic KNOWLES ACOUSTICS KNOWLES ACOUSTICS	
6	C1060 C11007 C11008 C11010	Capacitor Ceramic,Chip	EAE62506501	CL05A475MP5NRNC 4.7uF 20% 10V X5R - 55TO+85C 1005 R/TP - SAMSUNG ELECTRO- MECHANICS CO., LTD.	
6	R6003	Resistor,Chip	ERHY0024601	RC0603J151CS 150OHM 5% 1/20W 0603 R/TP - SAMSUNG ELECTRO-MECHANICS CO., LTD.	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	Q6001	FET	EBK61952101	KTJ6131V P-CHANNEL MOSFET -30V +-20 -0.05A 40OHM 100mW VSM R/TP 3P KEC CORPORATION	
6	C1004 C11020 C13000 C13001 C13010 C13015 C13020 C6021 C7022 C9005 C9006 C9007	Capacitor Ceramic,Chip	ECCH0007804	CL05A225MP5NSNC 2.2uF 20% 10V X5R - 55TO+85C 1005 R/TP 0.5MM SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	C15011 C15012 C15032 C6006	Capacitor Ceramic,Chip	ECZH0003103	GRM36X7R104K10PT 100nF 10% 10V X7R - 55TO+125C 1005 R/TP - MURATA MANUFACTURING CO.,LTD.	
6	VA5000	Varistor	SEVY0003601	ICVL0505101V150FR 5.6V 0% 100pF 1.0*0.5*0.55 NONE SMD R/TP INNOCHIPS TECHNOLOGY	
6	C100 C101	Capacitor Ceramic,Chip	ECZH0001215	C1005X5R1A105KT000F 1uF 10% 10V X5R - 55TO+85C 1005 R/TP - TDK KOREA COOPERATION	
6	BAT5000	Capacitor Assembly	SMZY0023501	PAS311HR-VG1 3.8 Backup Capacitor 0.03F,Module Assembly, KOREA TAIYO YUDEN.CO., LTD.	
6	R101	Resistor,Chip	ERHY0009507	MCR006YZPJ105 1MOHM 5% 1/20W 0603 R/TP - ROHM.	
6	C1030 C1044 C6001 C8004 C8008	Capacitor Ceramic,Chip	ECCH0009106	C0603X7R1C103KT 10nF 10% 10V X7R - 55TO+125C 0603 R/TP - TDK CORPORATION	
6	R15004 R3032 R3037	Resistor,Chip	ERHY0003201	MCR01MZF5F1001 1KOHM 1% 1/16W 1005 R/TP - ROHM.	
6	C15035	Capacitor Ceramic,Chip	ECZH0001217	GRM155R60J474K 470nF 10% 6.3V X5R - 25TO+70C 1005 BK-DUP - MURATA MANUFACTURING CO.,LTD.	
6	L5000 L5001	Inductor,Wire Wound,Chip	EAP61948701	SPM3012T-1R0M 1UH 20% - 2.8A 3.4 2.8 0.065OHM - - SHIELD 3.2X3.0X1.2MM NONE R/TP TDK KOREA COOPERATION	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	C1026 C8001	Capacitor Ceramic,Chip	ECZH0025920	GRM033R71C102K 1nF 10% 16V X7R - 55TO+125C 0603 R/TP - MURATA MANUFACTURING CO.,LTD.	
6	R8021	Resistor,Chip	ERHZ0000404	MCR01MZIP5J102 1KOHM 5% 1/16W 1005 R/TP - ROHM.	
6	VA8001 VA8002 VA8004	Varistor	SEVY0010501	IECS0505C040FR 10V 0% 4E-12F 1.0x0.5x0.3 IEC61000-4-1 (ESD) level #4 SMD R/TP INNOCHIPS TECHNOLOGY	
6	C1077	Capacitor TA,Polymer	EAE62682901	TCTOM1A225M8R 2.2uF 20% 10V 2.2UA - 55TO+105C 0.8OHM 1.6X0.85X0.9MM : 1.6X0.85X0.9MM NONE SMD R/TP 0.9 MM max. ROHM CO.,LTD.	
6	R4015 R5024 R6001	Resistor,Chip	ERHY0009504	MCR006YZPJ102 1KOHM 5% 1/20W 0603 R/TP - ROHM.	
6	U6003	IC,Temperature Sensor	EUSY0426201	NCT1008 DFN,8,R/TP,Remote Temperature Sensor,IC,A/D Converter - DFN R/TP 8P - ON SEMICONDUCTOR	
6	R15005	Resistor,Chip	ERHY0000254	MCR01MZIP5J472 4.7KOHM 5% 1/16W 1005 R/TP - ROHM.	
6	U13004	IC,MUIC	EUSY0371201	MAX14526EEWP+TCC6 MAX14526EEWP+TCC6,WLP,MUIC for 5Pin Micro USB WLP R/TP 20P MAXIM INTEGRATED PRODUCTS INC.	
6	R1001 R1002 R5037	Resistor,Chip	ERHY0009503	MCR006YZPJ101 100OHM 5% 1/20W 0603 R/TP - ROHM.	
6	L9001	Inductor,Wire Wound,Chip	ELCP0009408	LQM2HPN1R0MG0 1UH 20% - 1A 1 1.6 0.055OHM - - SHIELD 2.5X2X1MM NONE R/TP MURATA MANUFACTURING CO.,LTD.	
6	C12013	Capacitor Ceramic,Chip	ECZH0000830	C1005C0G1H330JT000F 33pF 5% 50V NP0 - 55TO+125C 1005 R/TP - TDK KOREA COOPERATION	
6	FB2000 FB2001	Filter,Bead	EAM62150301	CIM05J600NC 60 ohm 1.0X0.5X0.5 25% 0.2 ohm 0.65A SMD R/TP 2P 0 SAMSUNG ELECTRO- MECHANICS CO., LTD.	
6	U10003 U13001	IC,LDO Voltage Regulator	EUSY0407501	BU18TD4WNVX SSON004,4,R/TP,1.8V 150mA Single LDO,IC,LDO Voltage RegulatorIC,LDO Voltage Regulator ROHM.	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	C15023 C15025	Capacitor Ceramic,Chip	ECCH0001002	C1005C0G1H181JT000F 180pF 5% 50V NP0 - 55TO+125C 1005 R/TP - TDK KOREA COOPERATION	
6	C2013 C2014 C2015 C2041 C9002 C9028 C9029	Capacitor Ceramic,Chip	ECCH0007803	CL10A106MP8NNNC 10uF 20% 10V X5R - 55TO+85C 1608 R/TP 0.8MM SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	U8003	IC, Gate	EUSY0428401	XSON6 ,6 ,R/TP ,OR Gate , , ,IC,TTL	
6	C10012 C1025 C1041 C11003 C11015 C11016 C11021 C11028 C11030 C11040 C11053 C2042	Capacitor Ceramic,Chip	EAE62286801	CL03A104KP3NNNC 0.0000001F 10% 10V X5R - 55TO+85C 0603 R/TP 0.3 SAMSUNG ELECTRO- MECHANICS CO., LTD.	
6	R5032	Resistor,Chip	ERHZ0000316	MCR01MZP5F7503 750KOHM 1% 1/16W 1005 R/TP - ROHM.	
6	C9021	Capacitor Ceramic,Chip	ECCH0005604	GRM188R60J106M 10000000 pF,6.3V,M,X5R,TC,1608,R/TP,0.8 mm MURATA MANUFACTURING CO.,LTD.	
6	L1026	Inductor,Wire Wound,Chip	EAP61785901	LQW15CN18NJ00D 18NH 5% - 1.4A - - 0.046OHM 3GHZ - SHIELD 1.0X0.5X0.5MM NONE R/TP MURATA MANUFACTURING CO.,LTD.	
6	VA10000 VA10001 VA10002 VA10003 VA9000 VA9001 VA9002	Varistor	SEVY0004301	ICVL0518100Y500FR 18V 0% 10F 1.0*0.5*0.55 NONE SMD R/TP INNOCHIPS TECHNOLOGY	
6	R3033 R3034	Resistor,Chip	ERHY0000104	MCR01MZP5F49R9 49.9OHM 1% 1/16W 1005 R/TP - ROHM.	
6	Q6002	FET	EQFN0005601	KT5132E N-CHANNEL MOSFET 30V +-20 100mA 70HM 100mW ESM R/TP 3P KEC CORPORATION	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	C5034	Capacitor Ceramic,Chip	ECCH0000182	GRM155R61A104K 0.1uF 10% 10V X5R - 55TO+85C 1005 R/TP - MURATA MANUFACTURING CO.,LTD.	
6	U13002	IC,LDO Voltage Regulator	EUSY0407201	BU33TD4WNVX SSON004,4,R/TP,3.3V 150mA Single LDO,IC,LDO Voltage RegulatorIC,LDO Voltage Regulator ROHM.	
6	U15005	IC,Magnetic Sensor	EBD60985501	AMI306 1.7 to 3.6V - QFN R/TP 8P - AICHI STEEL CORPORATION	
6	C6007	Capacitor Ceramic,Chip	ECCH0042301	CL10A225KA5LNNC 0.0000022F 10% 25V X5R - 55TO+85C 1608 R/TP - SAMSUNG ELECTRO- MECHANICS CO., LTD.	
6	C2017 C2018	Capacitor Ceramic,Chip	ECCH0017501	CL10A226MQ8NRNE 22uF 20% 6.3V X5R - 55TO+85C 1608 R/TP 0.8MM SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	U3000	IC,Application Processor	EAN62344601	AP33 AP33,681PIN,CortexA9,1.5GHz,4Core,36MP,HD10 80P,3D,IC,Digital SignalProcessors BGA R/TP 681P NVIDIA CORP	
6	C11001 C11002 C11004 C11025 C11029 C11056 C2038 C2039 C6002	Capacitor Ceramic,Chip	ECCH0009514	MCH032A(AN)100DK 10pF 0.5PF 25V X7R - 55TO+125C 0603 R/TP - ROHM.	
6	C15020 C15030	Capacitor Ceramic,Chip	ECCH0000117	CL05C270JB5NNNC 27pF 5% 50V NP0 - 55TO+125C 1005 R/TP 0.5 SAMSUNG ELECTRO- MECHANICS CO., LTD.	
6	U6002	IC,Analog Switch	EAN61828001	FSUSB104 3.0~4.3V 30NSEC 25NSEC 1W MLP R/TP 10P 1 FAIRCHILD SEMICONDUCTOR	
6	VA102	Varistor	SEVY0004401	ICVL0518400V500FR 18V 0% 40pF 1.0*0.5*0.55 NONE SMD R/TP INNOCHIPS TECHNOLOGY	
6	C1043 C1046	Capacitor Ceramic,Chip	ECCH0009506	MCH032A270JK 27pF 5% 25V NP0 -55TO+125C 0603 R/TP - ROHM.	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	U5001	IC,Resistive Touch Screen Controller	EUSY0337101	TSC2007IYZGR TSC2007IYZGR TSC2007IYZGR,CSP ,12 PIN,R/TP ,Touchscreen Controller IC , ,IC,A/D Converter TEXAS INSTRUMENTS KOREA LTD, HONGKONG BRANCH. TEXAS INSTRUMENTS KOREA LTD, HONGKONG BRANCH.	
6	R4012 R4013	Resistor,Chip	ERHZ0000250	MCR01MZF5F2400 240OHM 1% 1/16W 1005 R/TP - ROHM.	
6	C1081 C1082	Capacitor Ceramic,Chip	EAE62524201	GRM0335C1H5R6CD01 5.6pF 0.25PF 50V C0G - 55TO+125C 0603 R/TP 0.33T max. MURATA MANUFACTURING CO.,LTD.	
6	L12002	Inductor Multilayer,Chip	ELCH0001048	1005GC2T10NJLF 10NH 5% - 250mA 0.42OHM 2.5GHZ 8 SHIELD NONE 1.0X0.5X0.5MM R/TP PILKOR ELECTRONICS LTD.	
6	Q15000 Q15001	FET	EBK61892201	KTK5132V N-CHANNEL MOSFET 30V +-20 100mA 70HM 100mW VSM R/TP 3P KEC CORPORATION	
6	C5038 C6030	Capacitor Ceramic,Chip	ECCH0034801	CL03A474MQ3NNNH 0.47uF -20TO20% 6.3V X5R -55TO+85C 0603 R/TP 0.3+-0.03 SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	R5031	Resistor,Chip	ERHZ0000222	MCR01MZF5F1503 150KOHM 1% 1/16W 1005 R/TP - ROHM.	
6	R3029 R7002	Resistor,Chip	ERHZ0000463	MCR01MZF5J330 33OHM 5% 1/16W 1005 R/TP - ROHM.	
6	L8000	Inductor,Wire Wound,Chip	EAP62106301	1239AS-H-100N=P2 10UH 30% 30V 700mA 1 0.7 0.46OHM - - SHIELD 2.5X2.0X1.2MM NONE R/TP TOKO, INC.	
6	U15000	IC,NFC	EUSY0397201	PN544 2.3~5.5V 61mA NFC 66P - TFBGA R/TP 66P NXP Semiconductors	
6	U1004	IC,DC,DC Converter	EUSY0264510	RF6560 2.9 to 5.1V adj 0W CSP R/TP 24P - RF MICRO DEVICES INC	
6	FL12000	Filter Separator,Spdt	SFAC0002701	LFD211G57DPMD153 0.67 13.5 - 2050,240 MHz,0.67 dB,13.5 dB,1575,6 MHz,0.88 dB,18.3 dB,SMD,ETC,diplexer,GPS/PCS,2.0*1.25, MURATA MANUFACTURING CO.,LTD.	
6	D5000	Diode,Schottky	EAH61794001	KDR720F 350mV 30V 100mA 5NSEC 12pF 100mW TFSC R/TP 2P 1 KEC CORPORATION	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	C4073 C4074	Capacitor Ceramic,Chip	ECCH0002002	C1005X7R1A473KT000F 47nF 10% 10V X7R - 55TO+125C 1005 R/TP 0.5+-0.05 TDK CORPORATION	
6	U15004	IC,Gyro Sensor	EAN62409401	MPU-6050 Accelerometer embedded Gyro Sensor 4X4 QFN R/TP 24P One Chip Solution INVENSENSE	
6	C105	Capacitor Ceramic,Chip	EAE62502901	CL05A106MP5NUNC 10uF 20% 10V X5R - 55TO+85C 1005 R/TP 0.55T max. SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	FB7005 FB7006	Filter,Bead	SFBH0008101	BLM15AG601SN1D 600 ohm 1.0X0.5X0.5 25% 0.6 ohm 0.3A SMD R/TP 2P 0 MURATA MANUFACTURING CO.,LTD.	
6	X3000	Crystal	EXXY0027401	X1E000021043400 26MHZ 10PPM 0F NONE SMD R/TP EPSON TOYOCOM CORP	
6	U12003	IC,RF Amplifier	EAN62093001	ALM-3012 2.7 0 0 0W 0W 0 0 COB R/TP 8P Gain 17.5/ NF 1.02 AVAGO TECHNOLOGIES INTERNATIONAL SALES PTE. LIMITED	
6	U5000	IC,PMIC	EAN62216701	MAXIM77663LEWJ+T 2.6 to 5.5V adj 2.35W WLP R/TP 90P - MAXIM INTEGRATED PRODUCTS INC.	
6	C6008	Capacitor Ceramic,Chip	ECZH0003503	GRM188R61E105K 1uF 10% 25V X5R -55TO+85C 1608 R/TP - MURATA MANUFACTURING CO.,LTD.	
6	X15000	Resonator Ceramic	EAW61644701	XRCGB27M120F3M10R0 27.12MHZ 30ppm 10pF SMD R/TP 4P MURATA MANUFACTURING CO.,LTD.	
6	R3011	Resistor,Chip	ERHZ0003601	MCR01MZSF2004 2MOHM 1% 1/16W 1005 R/TP - ROHM.	
6	C15036	Capacitor Ceramic,Chip	ECCH0000143	MCH155CN102KK 1nF 10% 50V X7R -55TO+125C 1005 R/TP - ROHM Semiconductor KOREA CORPORATION	
6	U6001	IC,Fuel Gauge	EAN61958601	MAX17043G 2.5 to 4.5V Vbat 0W DFN R/TP 8P - MAXIM INTEGRATED PRODUCTS INC.	
6	U14002	IC,LDO Voltage Regulator	EUSY0397901	BU12TD2WNVX SSON,4,R/TP,1.2V 150mA Single LDO,IC,LDO Voltage RegulatorIC,LDO Voltage Regulator ROHM.	
6	R3035	Resistor,Chip	ERHY0039802	RC0402FR-07453RL 453OHM 1% 1/16W 1005 R/TP - YAGEO CORPORATION	



## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	U4001	IC,MCP,eMMC	EAN62394101	KMKT000VM-B604 FLASH 1.14VTO1.3V,1.7VTO1.95V,2.7VTO3.6V 12.0x16.0x1.3 TR 186P NAND+DDR SDRAM FBGA 16GB eMMC+8Gb LPDDR2 533MHz (21nm 32Gb MLCx4 + 35nm 4Gb LPDDR2x2) SAMSUNG ELECTRONIC CO.,LTD	
6	R6012	Resistor,Chip	ERHZ0000433	MCR01MZF5J184 180KOHM 5% 1/16W 1005 R/TP - ROHM.	
6	D8000	Diode,Switching	EDSY0017702	SDB0530 360mV 30V 500mA 3A 0SEC 200mW SOD323 R/TP 2P 1 AUK CORP	
6	R3042	Resistor,Chip	ERHZ0000211	MCR01MZF5F1201 1.2KOHM 1% 1/16W 1005 R/TP - ROHM.	
6	R102 R103 R104 R105 R106	Resistor,Chip	ERHY0009527	MCR006YZPJ473 47KOHM 5% 1/20W 0603 R/TP - ROHM.	
6	C12004	Capacitor Ceramic,Chip	ECCH0009216	GRM0335C1E220J 22pF 5% 25V X7R - 55TO+125C 0603 R/TP - MURATA MANUFACTURING CO.,LTD.	
6	C8002	Capacitor Ceramic,Chip	ECCH0017401	CL21B105KBFNNNE 1uF 10% 50V X7R - 55TO+125C 2012 R/TP 1.25MM SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	U8001	IC,DC,DC Converter	EAN62410501	LM3533TMX-40 2.7 to 5.5V adj 0W CSP R/TP 20P - NATIONAL SEMICONDUCTOR ASIA PACIFIC PTE. LTD.	
6	C6026	Capacitor Ceramic,Chip	ECCH0000368	CL21B104KBCNNNC 0.1uF 10% 50V Y5V - 30TO+85C 2012 R/TP - SAMSUNG ELECTRO- MECHANICS CO., LTD.	
6	R8022	Resistor,Chip	ERHZ0000406	MCR01MZF5J104 100KOHM 5% 1/16W 1005 R/TP - ROHM.	
6	L5004	Inductor,Wire Wound,Chip	EAP61766701	VLS252010ET-1R0N 1UH 30% - 1.75A 1.75 1.9 0.084OHM - - SHIELD 2.5X2X1MM NONE R/TP TDK KOREA COOPERATION	
6	U13007	IC,Over Voltage Protection	EUSY0374601	MAX14528 MAX14528 MAX14528,TDFN ,8 ,R/TP ,Programmable OVP MAXIM INTEGRATED PRODUCTS INC. MAXIM INTEGRATED PRODUCTS INC.	
6	C1084 C11012 C12014	Capacitor Ceramic,Chip	ECZH0000813	C1005C0G1H101JT 100pF 5% 50V C0G - 55TO+125C 1005 R/TP - TDK KOREA COOPERATION	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	C12018	Capacitor Ceramic,Chip	ECCH0000195	GRM1555C1H3R9C 3.9pF 0.25PF 50V NP0 - 55TO+125C 1005 R/TP - MURATA MANUFACTURING CO.,LTD.	
6	FL12001	Filter,Saw	SFSY0042901	SAFEA1G58KA0F00 1575.42M/1602M 1.4*1.1*0.5 SMD R/TP 5P MURATA MANUFACTURING CO.,LTD.	
6	L12001	Inductor,Multilayer, Chip	EAP62226501	LQP03TG10NJ02D 10NH 5% - 190mA - - 1.52OHM 4.5GHZ 11 SHIELD - 0.6X0.3X0.3MM R/TP MURATA MANUFACTURING CO.,LTD.	
5	SAD010000	Software,Mobile	SAD33427101	Base V10A - EUROPE NVI-IFX LGP880.ADEUWH	
2	EAA01	Antenna Assembly	EAA62750103	KI-B00849 LGP880.AHASBK white white NFC Antenna NFC FPCB Tape KOMATECH CO.,LTD	
2	EAA02	Antenna Assembly	EAA62749903	LS04-I-11109-A2 LGF120S.ASKTBK Black Black Black LS Mtron Ltd.	
3	EAA030100	PIFA Antenna,RF	EAA62769402	LS01-I-11099-A0 SINGLE -2DB 5.0 FPCB Type - LS Mtron Ltd.	
3	EAA030101	PIFA Antenna,RF	EAA62769403	LS01-I-11100-A0 SINGLE -2DB 5.0 FPCB Type - LS Mtron Ltd.	
2	EAD010000	Cable,Assembly	EAD62150402	LG0069 USB USB 1.2M 5 BLACK UL N ningbo broad telecommunication co.,ltd	

## 12. EXPLODED VIEW & REPLACEMENT PART LIST

### 12.3 Accessory

**Note:** This Chapter is used for reference, Part order is ordered by SBOM standard on GCSC

Level	LocationNo.	Description	PartNumber	Spec	Remark
2	AFN053800	Manual Assembly Operation	AFN75814101	LGP880.ADEUWH ZZ:Without Color Manual assy for LGP880 DEU	
3	MBM062600	Card,Quick Reference	MBM63736901	PRINTING LGP880.ADEUWH ZZ:Without Color Simple manual for LGP880 DEU	
3	MBM087200	Card,Warranty	MCDF0001110	PRINTING LGP920.ADEUML ZZ:Without Color Germany Warranty card	
2	MBM068900	Card,Service Guide	MBM63716801	PRINTING LGP720.ADEUBK ZZ:Without Color Leaflet for LG Tag+ of EU area	
2	EAC00	Rechargeable Battery Lithium Ion	EAC61898401	BL-53QH-WW-LGC PRISMATIC 3.7V 2.1AH 420mAh 51.3*55*5.3 51.3*57.8*5.6 BLACK. Bar BL-53QH-WW-LGC LG Chem,LTD.	
2	EAY060001	Adapters	EAY62769002	MCS-01ER 90Vac~264Vac 4.75Vdc~5.25Vdc (At the end of USB socket) 1.2A 50/60Hz CE WALL 2P USB - SUNLIN ELECTRONICS CO.,LTD	
2	MFL053800	Manual,Operation	MFL67582701	PRINTING LGP880.ADEUWH ZZ:Without Color Web manual for LGP880 DEU	
2	EAB010200	Earphone,Stereo	EAB62608701	EMB-LGE019STWC 20mW 32OHM 103DB 20HZTO20KHZ 1.15M WHITE PLUG - CRESYN CO.,LTD	